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INDUSTRY as a whole expects a postwar boom, and its production and sales plans are being based on national income levels as great as or greater than the \$120 billion reached in 1941. This is one of the significant findings of a survey by *Modern Industry* summarized on pages 322-324 (**Industry's Peacetime Plans**). Surprisingly, sales planning seems to lag far behind production planning, with only about one-fourth of the firms surveyed citing plans for new distribution channels, increased sales training, and improved market research (in contrast to well over 50 per cent that have blueprinted specific in-the-plant improvements). Too many organizations seem to be pursuing a policy of watchful waiting when it comes to re-examining sales methods, losing sight of the fact that streamlined selling must supplement up-to-date production plans.

Planning has shifted to action in many instances; e.g., a substantial percentage of companies have actually placed orders for new machinery or tools, or have made budgetary provision for their purchase. This finding should serve to remind concerns which are merely "waiting to see" that fast-moving competitors may get the jump on them.

Nearly half the companies surveyed plan to bring out new designs, more than a third will introduce new products, while another third will launch new packages. The competitive implications of these findings should be carefully weighed by each company before it plunges into the battle for postwar sales.

THE importance of color in packaging has long been recognized, but few well-organized tests have been conducted to prove the merits of any particular color scheme against another. An abstract from *Advertising & Selling* on pages 350-351 (**The Value of Color in Packaging**) summarizes the results of the strategic use of color in various fields.

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THE MANAGEMENT INDEX

General Management

Can Industry Guarantee an Annual Wage?

THE guaranteed annual wage will never get a chance to show its true worth if it is made the subject of arbitrary, irresponsible and ruinous labor "demands." Yet it is now being used as a political football to stir up sentiment against management and to force action on schemes for government guaranteed "full employment."

To correct the perspective in which this question is currently being viewed, it may be pointed out that:

1. *The warmest sponsors of the guaranteed annual wage have never regarded it as an economic panacea.* To assert that because it works well, say, in a soap plant or a food factory, it should therefore be applied to the entire steel industry is manifestly absurd. One might as well contend that, because penicillin proves helpful in pneumonia, it should be used to set a broken leg.

2. *The guaranteed annual wage has no more place than religion among the "demands" of labor upon most managements.* Even though some of the details of existing plans are incorporated in union agreements, annual payment is historically a management practice, based on management decisions. To demand it is like demanding a change in merchandising and production policy (which it usually entails), in accounting methods, in capitalization, and in other matters equally remote from the legitimate

sphere of collective bargaining. And there are whole industries in which it would be more logical for the unions to deliver their demands for guaranteed annual wages at the door of the consumer.

No sane management man was ever opposed to the principle of annual payment. Management has initiated almost every successful annual payment plan of any age or standing to date. By diligent effort and careful experiment, management has made real progress with the idea. And, in each successful instance, management has been pleased with the results—for good, sound reasons of enlightened self-interest. Regularized production, low turnover rates, low training costs, and improved morale are plain good business at any time, and they remain high among management's acknowledged goals.

Indiscriminate demands for the annual wage are linked directly to labor's drive for "full employment" in a totally planned economy. Some of its advocates have been frank enough to say so. For example, the International Union of Marine and Shipbuilding Workers—C.I.O., in announcing its campaign for a guaranteed annual wage, said candidly:

"We recognize . . . that guaranteed annual wage plans cannot be established on a nation-wide basis without establishing planned economy in America."

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E X

Of equal interest is this comment from an article in the Socialist publication, *The Call*, in which William Becker observes:

"If the steel industry or the auto industry should agree to guarantee the annual pay of their working force, they could do so only at a level of production much lower than their present wartime levels. But then there would be no demand for the labor of those not included in this original working force of these planned industries. The workers not included in the plan would be more permanently excluded from employment than before.

"It is this problem which makes so significant the fact that Walter Reuther (vice-president of the United Auto Workers—C.I.O.) has come to speak of 'full employment and the guaranteed annual wage' as one demand. They cannot be separated without creating a permanent outcast class."

The fact that the volume of experiment with annual payment appears to be increasing is a far cry from the assumption that the principle can be applied with the wave of a wand in such industries as automobiles and steel. Such plans have practically no history in the durable goods industries, where manufacturers have always been at the mercy of market developments beyond their control. Says a recent WLB report:

"Practically all employment and wage guarantee plans are in either non-durable consumer goods industries or service and distribution. Where seasonal variations in employment are important, companies generally use an annual wage or wage advance plan. If employment rather than pay is guaranteed, the plan is usually restricted to a basic crew or a short period."

The 57 annual wage plans on file

with the Wage and Hour Division in March, 1944, came from companies in the following industries: textile printing and dyeing, 9; food products, 9; ice, 7; fur, 6; men's clothing, 5; metals and machinery, 4; utilities, 4; printing and publishing, 4; millinery, 2; wholesale, 2; feed, 1; transportation, 1; paper products, 1; billboard advertising, 1; fertilizers, 1.

In the last analysis, the regularization and stabilization of employment is the best and broadest objective, both for management and labor, whether or not it happens to be formalized under some such slogan as the "guaranteed annual wage." And it is in this field that employers have worked most valiantly, regardless of labor "demands."

A presidential committee, headed by Eric A. Johnston of the United States Chamber of Commerce, is now studying the whole question of annual payment in preparation of a report that will be submitted to the White House by the end of this year. Recently this committee polled 90,000 American business men and found that the majority favor some sort of guaranteed annual income for their employees.

This should refute any contention that management is "against" regularization of employment. It emphasizes again that the current controversy is largely the result of a manufactured agitation over a manufactured issue.

The challenge of unemployment, the fear of the layoff, the whole specter of economic uncertainty is, in fact, something that management wants to meet and conquer as much as any labor leader does. In time these things can be conquered—by careful study and thought, and by cooperative action on the part of management and labor. *Factory Management and Maintenance*, July, 1945, p. 82:5.

Industry's Peacetime Plans

WHAT are foresighted companies planning and doing to capture postwar profits despite keener competition? In a recent survey conducted by *Modern Industry*, three-page questionnaires were sent to a cross-section of large and small companies. Executives of hundreds of firms were asked to describe their plans for whittling costs and expanding sales. Significantly, it developed that industry's production planning has moved apace while postwar sales plans lag behind. The following are some pertinent results of the survey:

Asked the estimates of postwar national income upon which company executives are planning future business activity, 97.2 per cent of the respondents advised that they are basing their plans on a postwar national income as great as or greater than the \$120 billion in 1941. Average forecast falls below goals set by the Committee for Economic Development, but points to belief in record peacetime incomes.

Results of the survey reiterate the obvious fact that alert executives have extensive plans for modernizing methods and equipment. Answers to the questionnaire place plans for improving methods ahead of those for new equipment. Six of the 10 steps being taken by more than half the companies deal with methods, four with specific new equipment. This accent on methods shows desire for efficiency still outrunning effective demand for the tools with which to achieve it. Sellers to industry, however, may assume that a move to improve methods is a long stride toward recognizing the need for new machinery, equipment and materials.

More than 70 per cent of the respondents indicated that they were planning improved plant layout. More than 60 per cent plan better plant

housekeeping and improved lighting. And over 50 per cent plan better cost controls, new machinery and tools, new washrooms and lockers, better inventory controls, manufacturing methods research, new conveyor systems, and the installation or maintenance of incentive wage payments.

While the majority of concerns are still at the planning stage, typical survey results reveal that a significant percentage has made up budgets to execute changes, or has already placed orders for new equipment. For example, of those planning new machinery or tools, and new process equipment, over 30 per cent have made provisions in their budgets for these expenditures, and almost 40 per cent have actually placed orders for the equipment.

Companies were asked whether new equipment and method plans covered existing or new or expanded plants. No over-all figure on expansion can be derived from the study. Significantly, though, 25 to 40 per cent of those planning new equipment want it for expanded plants.

Big surprise of this study is the way attention to sales methods lags behind in-the-plant improvements. Compare the percentage differences between number of companies planning major production changes with the number planning distribution improvements: while 71 per cent plan better plant layout, 65 per cent, better plant housekeeping, and 63.1 per cent, improved lighting, a mere 26.2 per cent have formulated plans for new distribution channels, 26.2 per cent mean to provide more sales training, and only 27.9 per cent intend to make some improvement in market research facilities. This contrast exists partly as a result of wartime emphasis on production.

Too many companies are holding

back when it comes to reexamining sales methods. Too many are going to wait and see, to subject their sales policies to trial-and-error test. A recent study made among prominent sales executives shows that, whereas some 80 per cent recognize and expect increased postwar competition, only 20 per cent are getting ready to meet it. Here is a danger signal for management to watch for in its planning.

In some respects, the small company is far behind the leaders in plans for more efficient operations and stepped-up sales. The survey revealed that purchases of new machinery and tools were planned by 62.2 per cent of the small companies (fewer than 100 employees), comparing favorably with 49.5 per cent of medium-size companies (100 to 500 employees) and 66.2 per cent of the large companies (over 500 employees) making such plans. With respect to better plant layout, however, only 50.8 per cent of the small firms, compared with 76.2 per cent of medium-size companies and 87.5 per cent of large companies, indicated that improvements were forthcoming. A mere 36.3 per cent of the small companies are making plans for improved personnel management, whereas 50.6 per cent of the medium-size companies and 71.9 per cent of the large companies have recognized the need for improvement here.

Thus it appears that intention to provide new equipment and machinery runs high in small concerns, although these concerns seem to feel that investment in such "intangibles" as better personnel management, new systems, and various types of research is a luxury for the big fellow only.

Generally speaking, the fact that industry will be a big buyer during the next few months offers a giant-size chance to companies previously selling in only two or three industrial markets—a chance to broaden their market's

base, to uncover rich, fresh selling fields.

This chance-in-action is exemplified by the case of a manufacturer of conveyors for food producers. Faced with the problem of building sales, this company offered its equipment to other fields on a simple "try it and see" basis. At last count, the company had already uncovered applications for its equipment in five new industrial lines.

Processing equipment, lighting fixtures, washroom and locker facilities, and modern office machinery are among the groups winning a consistent high-percentage interest from all industry.

In the case of materials-handling equipment, conveyors get a strong vote from the food industry; cranes and hoists stand highest now with iron and steel manufacturers. Skids and pallets, greatly boosted during the war, win a fairly uniform interest from all groups.

The broad interest displayed in better working conditions probably reflects wartime advances more than any other item in this survey. Controlled working conditions, covering light, air, temperature, dust, and noise plagues, have come into their own during the war, cutting labor turnover, increasing labor output, and achieving closer control over work standards.

Up-to-date washrooms and lockers, unavailable for many companies during the war, take first place in employee relations plans. Training and safety programs rank high on the list, as do plans for medical and nutrition facilities for the improvement of workers' health.

Earlier it was pointed out that plans for new products and sales methods fall far short of plans for more efficient production and new equipment. The 43.4 per cent who are redesigning products, however, plus the 36 per

cent with new products cannot be lightly dismissed.

These indications portend major changes in the near future. To appreciate fully the competitive warning signal, think in terms of one company.

What will it mean to that company when nearly half its rivals bring out new designs, over a third launch new products, and another third dabble prospects with new packages? *Dazzle Industry*, July 15, 1945, p. 48:9.

How Many Businesses Are There?

SINCE the outbreak of the war in 1941 there has been a considerable drop in the number of firms in business; the business population declined by 434,000 firms or 13 per cent between 1941 and the end of the first quarter of 1944. And while a degree of stability has been realized since 1943, the number of firms is at a low level compared with figures for the prewar period.

"The ratio between number of firms and total population," says the Department of Commerce, "was perhaps as great at the outbreak of World War II as at any other time since 1900. This suggests, at least in terms of number, that the opportunities for individual enterprise had not declined perceptibly during the 40 years preceding the war—except during the great depression—and that the entrepreneurial class was at least as numerous in 1941, relatively, as in 1900, 1920, or 1929."

It is interesting to consider that from 1900 to 1929 the business population of the United States increased more than the human population did; the number of businesses increased 88 per cent while the number of people increased 62 per cent. In the recession period of 1929-1933, the number of businesses declined 7 per cent; during the recovery period, 1933 to 1941, there was a 20 per cent increase.

Department of Commerce studies indicate that about 30 per cent of all firms have gone out of business since the

start of the war, although output, sales and profits of most continued at an exceptionally high level. From 1941 to 1943 about 1,073,000 business firms discontinued and 572,000 new businesses were established, with the result that 501,000 fewer firms were in operation by the end of 1943. Most of the drop in business population took place during 1942 and early 1943 when war output was expanding.

Expansion of the war program had a significant effect on the trend of manufacturing lines. The industries that changed over most completely to war production were those in which there was the greatest increases in number of firms from 1939 to 1943. Machinery and transportation equipment had the largest rise, followed by lumber, ferrous metals, chemicals and non-ferrous metals. While the number of all the non-war industries—except stone, clay and glass, which declined 33 per cent—increased from 1939 to 1943, the gain was slight, ranging from 1 per cent for food products to 8 per cent for apparel, leather, and textile products.

The influence of war production on the number of business births and deaths was most notable in the manufacturing industries. New manufacturing concerns totaled 30,800 in 1940, rose to 33,800 in 1941, and then dropped to 25,600 in 1943. The death rates of manufacturing and mining industries followed the pattern of all industries. The number of manufactur-

ing firms discontinuing business in 1940 was 27,300, dropping irregularly to 23,200 in 1943. Thus the number of births exceeded the number of deaths by 1,100 firms, but the level of both births and deaths was below that of prewar years.

In 1943 the number of discontinued manufacturing firms in the food group exceeded entries; this was also true in the textile mill products, apparel, chemicals, rubber products, leather, metals and automotive industries. Entries exceeded discontinuances in companies producing furniture, paper, printing, stone, clay, and glass products, electrical machinery, and other machinery.

The contract construction group had the highest birth and death rates, which is explained by the fact that concerns organized temporarily to carry on specific construction projects were included. Changes in business transfers were negligible.

From 1940 to 1943 retail trade had the lowest birth and death rates of any of these major groups of businesses. The number of new concerns declined appreciably from 107,300 in 1940 to 38,200 in 1943. Along with this decline was an increase in business deaths. Deaths rose from 106,400 in 1940 to 228,800 in 1942, but in 1943 dropped to 147,200. There were more discontinued retail businesses in 1943 than in 1940, with the greatest increase among eating and drinking places, food and liquor stores and apparel stores. Among automotive and general merchandise stores the increase in discontinuance was less. New retail businesses were fewer in all lines in 1943 than in 1940.

The conclusions reached for the years previous to 1939 are: (1) that the relative importance of the small business sector of the economy gen-

erally declined during the period between World War I and the great depression, and (2) that between 1932 and 1939 little change occurred in the relative position of small and large firms.

The number of workers affected by births and deaths of business in recent years is significant. In 1939, 90 per cent of all new, discontinued and transferred business employed fewer than four wage earners; firms with 50 or more employees comprised but 1 per cent of new, discontinued and transferred firms. From 1940 through 1943 the same situation prevailed generally in all industries, but in 1943 the larger firms accounted for a greater percentage of births and deaths than they did in 1940.

In 1940, 89 per cent of all the business births were in the small-size category (with three or fewer employees); and in 1943, 86 per cent fell in this same group. About 96 per cent of business deaths in 1940 were in firms having three or fewer employees; in 1943, 93 per cent were in this size classification. Business transfers also were more predominant in this small-size group.

Of the 30,800 new manufacturing businesses in 1940, 74 per cent had fewer than four employees; and in 1943 68 per cent of the entries were in this small-size class. In 1940, 96 per cent of the manufacturing businesses which were discontinued employed fewer than four workers, while in 1943, 91 per cent of the deaths were in this group.

In retail trade, again, the largest proportion of new and discontinued firms was in the smallest-size group—establishments employing fewer than four workers. This was true of each of the separate retail trades. By LUCIENNE P. RICHON, *Dun's Review*, February, 1945, p. 13:12.

Office Management

Trade-in Policies on Office Machinery

WHAT policy is observed by most companies in trading in office machinery during normal times? From 24 questionnaires returned to the Cincinnati Chapter of the National Office Management Association, the following summary of current practices was prepared:

1. *Do you have an established policy?* Nineteen companies advised that they had no established basis for trading in office machinery. Two companies stated that they did have definite policies, but in one of these the system was being revised as a result of wartime experience. Two organizations reported they had definite trade-in policies for typewriters only, one other for typewriters and duplicators only.

2. *If you do not have a definite policy, what is the basis for determining when new machinery will be purchased?* Ten companies reported that their policy was to purchase new machinery when old machinery wore out. Three companies stated that they purchased new machinery when salesmen convinced them that they had better and more efficient products than the ones in use. Eight advised that their policy was to purchase machinery when old equipment wore out, or when salesmen convinced them they had better products than those in use, or when there was budgetary control for the purchase of new machinery.

Of the 24 respondents, two utilize what might be termed "progressive" policies for machines. That is, the newer machines are placed where usage is greater and, as the machines wear, they are transferred to departments where usage is lighter. Eventu-

ally the machines are declared inefficient by the repair departments.

3. *Who has final authority in the purchase of office machinery?* Fifteen concerns stated that the office manager had final authority; one reported its department heads exercised such authority; and four stated that their purchasing departments held this authority.

Several comments were made regarding the authority extended. Two organizations follow the practice of having department heads confer with the secretary and treasurer. One company states that its office manager recommends and the treasurer authorizes purchases of equipment. In one case, the comptroller authorizes replacements, but the purchasing department has final authority. Two organizations declare that the office manager gives final approval on items up to a stated purchase price, one designating \$500 and the other \$1,000. Purchases requiring greater outlays are approved by the president.

4. *If you have an established trade-in system, how frequently are various types of machinery renewed?* Of the five companies reporting some sort of definite policy, only one had devised a policy covering all office machinery. The range on typewriters was from three to eight years—five years being the average life before trade-in.

The following are seven companies' recommendations for average usage periods for specific machines: typewriters, five-10 years; calculators and adding machines, 10 years; bookkeeping machines, seven-10 years; dictating equipment, 10-15 years.

NOMA Forum, April, 1945, p. 4:2.

Insurance on Office Buildings

THE fact that office building property in the United States represents a total investment of more than \$10,000,000,000 clearly indicates the need for adequate insurance protection to building owners, not only against damage to the physical property, but also against injury to members of the public, to employees, and, in some cases, to the property of tenants.

The following is a check list of the insurance coverages which the office building management should consider carefully:

1. *Owners, Landlords and Tenants Liability.* This type of insurance protects the building owner in case of injury to a member of the public. Further, it protects him in case of damage to the property of others. Accidents occur at entrances to buildings or in frequently used passageways, particularly if there is a difference between street and building level. Many buildings contain marble or tile floors which become slippery in wet weather. Use of buildings at odd hours, on Sundays and holidays and at night, leads to accidents and suits. Stairways may be dark. If the elevator operator knows that persons are in the building, knowledge is imputed to the building owner.

O.L. & T. insures the building owner for personal injuries sustained by an employee or independent contractor while working on or about the premises. Structural alterations and extraordinary repairs are covered under this insurance only if an alterations permit is attached. This should be provided for when the policy is written.

If the building operates an adjacent parking lot for tenants' use, free of

charge, the risk can be covered in the O.L. & T. policy. Consumption of food on the premises, if the building operates a restaurant or other food concession, can be covered also, and under some circumstances, payment for immediately necessary first aid or medical attention, ambulance, etc., is covered. In addition O.L. & T. property damage coverage protects the building owner against loss resulting from damage to tenants' property caused by fire or by negligence of employees of the building.

2. *Contractual.* Public liability insurance covers only liability imposed by law. Where a building owner agrees with another person or firm that the building will be liable under certain conditions, it may be necessary to endorse the O.L. & T. or buy separate contractual liability insurance. When the contractual liability is added to the O.L. & T. policy, the assured should keep in mind that the same basic limits apply to both public and contractual liability, and that his current protection is spread over a greater hazard. The contract should be studied to see if the building owner has assumed liability in case of damage by fire; if so, he should see if he can secure protection from a fire insurance company.

When a city permits a building management to put any obstruction across, over or under public property, such as a street, sidewalk or alleyway, it generally requires the management to assume all liability for accidents which may happen there and to post a bond guaranteeing payment of any damages. These agreements cover canopies, driveways, sidewalk elevators, vaults, and other basement space under a sidewalk, also tunnels and sidewalk

caissons and signs which overhang a street or sidewalk.

If a separate contractual liability policy is written, it should be handled by the company which writes the O.L. & T. insurance. This will prevent disputes between companies over which is liable. Technically, if a contract expires and is renewed during the term of insurance, the second contract, though identical with the first, would not be covered, since the contracts insured are specifically described. Automobile liability insurance excludes liability assumed by contract, and there is no requirement that automobile accidents be excluded under contractual liability.

3. *Elevators.* Insurance of the elevator hazard is essential to the building owner. Elevator public liability can be written as an endorsement to the O.L. & T. policy or as a separate policy. Limits should be adequate, which means they should be high. An elevator accident could lead to judgments that would wipe out the ownership. Credits are allowed for door interlocks and car gate contacts. Exclusions are several and should be read and understood. The type of building ownership and control exercised affect the elevator insurance and the cost, and there should be no confusion on this point in writing the policy. The owner should insure freight elevators, as well, for the accidents they cause often involve large judgments.

4. *Workmen's Compensation and Occupational Disease.* In some states workmen's compensation is compulsory; and even in states where it is voluntary, it should be carried. Further, the office building owner should discuss inclusion of occupational disease as part of the workmen's compensation contract. The cost is nominal, and a surprising number of ailments have been held to be occupational.

5. *Comprehensive Personal Liability.* Where the owner of the office building or officers of the corporation have building employees perform work or services for them personally—getting the carpenter to put up some shelves at a residence, for example—they may find themselves personally liable. For this risk, the comprehensive personal liability policy, one of the best coverages the insurance business has recently developed—and at an extremely low cost—may be the answer.

6. *Automobile.* Few business firms realize that although they may not own an automobile or truck, they can sustain a severe and perhaps economically fatal loss through an automobile accident to a third party. Not ownership but operation and control of an automobile is the important consideration in determining liability. There are many situations in connection with the operation of an office building in which an employee, a member of the management staff, or the owner himself borrows a car to perform some business errand.

7. *Boiler and Machinery.* With the increased use of machinery and power in modern office buildings, the probabilities of damage to property and injury to persons grow along with the need for transferring this risk to an insurance company.

8. *Burglary and Robbery.* In the case of a small office building, the office building burglary and robbery policy is a satisfactory coverage. It provides units of \$250 protection on robbery inside the premises, robbery outside, kidnaping, safe burglary, money and securities in night depository or residence, burglary, theft, robbery, or larceny within the premises, and damage to money, securities and other insured property in the premises, including

glass and lettering replacements necessitated by burglary or robbery or attempted robbery.

For the larger office building, requiring protection of \$1,000 or more, a money and securities broad form policy is recommended. This covers direct loss of money and securities within or outside of the premises, and property loss or damage, except by fire, caused by robbery or attempted robbery outside of the premises while the property is being conveyed by a messenger. It excludes dishonesty losses, war losses, or loss by fraudulent trick or device, and forgery.

9. *Fidelity.* In securing fidelity coverage the building owner should not attempt to select the posts at which loss is most likely to occur or the persons most likely to steal. He should consider seriously a blanket bond covering all employees in adequate amount. The importance of this is borne out by the large annual losses (materials shortages, etc.), which are caused by personnel who never handle money.

10. *Forgery.* Depositors and commercial forgery bonds cover not only forgery or alteration of checks, but also drafts, notes and other negotiable instruments. They cover alteration as well as forgery of signature and endorsement. They cover outgoing as well as incoming items where depositors and commercial forms are issued as one policy. If the fidelity bond covers all employees and is adequate in amount, the forgery bond may be endorsed to exclude forgery by employees, in which case the latter premium is reduced 50 per cent. The amount of loss by forgery and alteration—more than \$360,000,000 per year—is estimated to exceed loss by fire.

11. *Valuable Papers.* In the possession of most office buildings are blueprints, diagrams of plumbing and

steam fittings, etc. These are used frequently in making alterations and would be difficult and costly to replace. They should be insured in a valuable paper policy.

12. *Plate Glass.* Unless the lease places the responsibility for glass damage on the tenant, the owner should obtain insurance for exterior plate glass, skylights, shelving, poster boards, penthouse roofs, glass bricks and neon signs. He should check to see if lettering and ornamentation are included. Normally the plate glass policy excludes the hazard of fire. The insured should take up this question with his agent.

13. *Water Damage.* There are two water damage insurance contracts. One protects against legal liability. The landlord is responsible for the roof, for example, and if there is a water storage tank, considerable damage could occur. If the building management is responsible for the care of windows on stairways, it might become involved in a suit for damage to property of a tenant if, for example, a cold wind coming through the window should freeze pipes and cause them to burst.

The other water damage form indemnifies the owner for damage to his own property.

14. *Miscellaneous.* The building owner may find it advantageous to discuss with his agent accident and health, hospitalization and life insurance on a group basis for employees of the building; key man or partnership life insurance. He should take up with his agent also liquor liability (in Illinois, Maine and Michigan), notary public bond, safe deposit box insurance if the building operates a vault, coverage for sponsorship of athletic events and tenants' protective liability.

BY KENNETH FORCE. *The Casualty Insuror*, June, 1945, p. 7:4.

How Good Is Your Office Layout?

THE following check list of specifications for an ideal office layout, devised by the Knoxville Chapter of the National Office Management Association, will enable you to rate your own layout:

1. Work should flow through the office with a minimum of backtracking.
2. The transportation distance of work should be at a minimum. If possible, desks should be so arranged that each worker will receive his work from the person behind or beside him.
3. Employees using the same machine should be grouped.
4. Noisy machines should be segregated insofar as possible.
5. Desks should face in the same direction, unless two employees are working together, in which case they may face each other.
6. Employees should not face the light or any source of glare.
7. Employees who do the closest work should be located nearest the light.
8. Individuals who have frequent callers should be near entrances.
9. Employees should be placed in front of or around the person having authority over them.
10. Aisles should be at least three feet wide; hallways should be at least four feet wide.
11. For desks facing in the same direction, the absolute minimum distance between the back of one desk and the front of another should be two and one-half feet.
12. Files should be placed against walls or railings if possible.
13. Exceptionally heavy equipment should be placed against walls or columns.
14. Private offices should be limited. A large open space is better than the same space cut into smaller rooms, because it facilitates control and communication, provides better light and ventilation, reduces space requirements, eliminates partition costs, etc.
15. Where private offices are necessary, they should not be so placed that they cut off natural light or ventilation from employees working in adjoining rooms.

—NOMA Forum 4/45

Maintaining Office Efficiency

THE technique of improving office efficiency may be summarized in the following steps:

1. Obtain a written job description from each person in the office, and analyze these to determine the organization setup and to locate overlapping and useless activities.
2. Study each job carefully, and confer with each person involved to obtain all needed information; solicit their suggestions for improvements.
3. Prepare a layout of the office, study the movement of papers from desk to desk, locate bottlenecks, and plan changes to achieve a straight-line flow of work.
4. Chart important routines and simplify them as much as possible.
5. On the basis of data obtained by steps 1-4, eliminate any unnecessary activities.
6. Reassign work so as to centralize related activities.
7. Provide office machines, appliances, desks, trays, and other accessories which are best adapted to the work and which will promote accuracy and increase output.
8. Study the layout of the office with an eye to aiding efficiency and increasing the convenience and comfort of all workers.
9. If the advisability of any change is not demonstrable by argument, make an experimental installation and let critics be guided by results.
10. Evaluate the quality of your personnel and make improvements where desirable through better selection and training.
11. Appraise the quality of supervision and improve it if necessary.
12. Encourage the preparation of an office manual which will delineate the duties and responsibilities of the various positions and clearly describe the procedures entailed.

—STANLEY P. FARWELL in *The Filing Bulletin* 3/45 (Chicago Filing Association)

Industry Fights VD

AT least 3,250,000 individuals in the United States have syphilis. Of that number, one-third, or over a million, are workers in industry. It has been estimated further that 250,000 individuals contract syphilis and 1,000,000 people become infected with gonorrhea each year. What is the cost of venereal disease to industry? Although actual figures remain unknown, the cost to employers is probably in the tens of millions of dollars annually.

Army and Navy records show that syphilis and gonorrhea have been among the greatest cripples of the striking power of the nation's armed forces. If industry could learn the true facts, it would find that the venereal diseases are equally as great saboteurs of working capacity in industrial enterprises. These diseases are serious causes of absenteeism, labor turnover, lost manpower and higher taxes for institutional care.

The financial loss to the employees themselves is also severe, to say nothing of the misery and suffering that may be inflicted upon the victims, especially on those who are not receiving proper treatment. It is lack of medical attention to venereal diseases that makes them hazardous. Untreated venereal diseases are usually long-lasting, and any crippling effects may be progressive. Treatment in the early stages, therefore, is most important.

What is industry doing to control VD among its employees? The experience of the medical program for the control of syphilis in the du Pont rayon plant at Richmond, Va., will illustrate one approach to industrial action against VD:

During a period from 1933 to 1934, a program of VD control in the plant reduced the rate of infection from 64 per thousand to less than five per thousand. The control plan at the Richmond plant resulted from a survey made in 1933. In that year some 2,000 Wassermann blood tests were made. Of the persons examined, 6.4 per cent were found to have positive Wassermanns. In 1941, similar tests of 4,000 people showed positive results in only about one-fourth of 1 per cent. In 1944 approximately one-half of 1 per cent of blood tests made were positive.

If an applicant for employment is found to have an open, active primary lesion due to syphilis, he is not accepted until he has had two or more treatments, after which a person is rendered temporarily non-infectious in most cases. Though he is then allowed to go to work, he must continue to receive controlled treatments which maintain the non-infectious condition and finally cure most cases. If the new employee is in the latent stage of the disease, he is permitted to go to work providing he undergoes proper treatment.

A thorough medical history is made of each positive blood test case. Where the individual is married and has children, blood tests of all members of the family are urged. The disease—its origin, development and possible results—is carefully explained in non-medical terms. The need for continuous treatment is stressed. The patient is advised to go to his family physician for treatment, and is told to bring weekly reports from the doctor stating the type and amount of drug used. A letter is written to the family doctor requesting

that the patient be given treatment. Where treatments consist of an alternating series of arsenic and bismuth, a minimum of 70 such treatments is requested without the so-called rest period between the series.

When the records indicate that an individual has missed a treatment, he is required to provide an explanation. If the reason is of a medical nature, a statement from the physician is obtained. If the reason is personal, the dangers of interrupting the treatment are stressed. An essential part of this entire program is that the worker's condition is, without exception, held to be a confidential matter between himself, the plant medical director and the family physician.

That the company has been successful in presenting its case is shown by the facts that only once was it necessary to dismiss a worker because of failure to follow the treatments, and that only one person quit rather than follow through on the routine.

In addition to the individual control of cases, the company carries on a widespread educational campaign for the prevention of venereal disease. Posters are displayed in locker and rest rooms. A series of 20-minute talks, given to each group of men, covers the causes, course, prevention and treatment of syphilis and gonorrhea; meetings are open for discussion at their conclusion. A woman physician gives a similar series of talks to all women.

A nation-wide effort to enlist the aid of industry and labor in the control of venereal diseases is being made by the American Social Hygiene Association. Seventy labor newspapers have already printed a series of articles on VD which have been prepared by the Association. Pacific Coast plants have been most active in undertaking blood-test programs, though in Tennessee 90 per cent of the workers in one plant took

blood tests on the recommendation of the unions.

The Association's methods for bringing health education to industrial groups include articles in plant newspapers, weekly mimeographed health bulletins, movies, talks, posters, displays, and other literature. It urges that plant medical departments provide a referral service, blood tests, X-rays and checkups. The function of the referral service is to encourage requests for help from employees with medical, family, welfare and other problems, and then to refer each case to a private physician, clinic or other appropriate agency.

Medical consultants of the American Social Hygiene Association advise the medical departments of many large war industries regarding ways and means of controlling venereal diseases. The program of the Association, however, does not embrace the processes of setting up general medical services in industry. Booklets issued by the National Association of Manufacturers, the U. S. Chamber of Commerce, and the U. S. Public Health Service describe such general services.

The Association's industrial health experts are confident that the industrial community can be made health-conscious and that disease can be combated effectively through a concentrated campaign to educate workers and to make medical facilities available to them. This can best be accomplished through the concerted efforts of management and trade unions, co-operating with state and local health and law enforcement authorities.

In addition to VD, other topics recommended for inclusion in the industrial health education program are the following: appendicitis, cancer, contagious diseases, dental care, diabetes, first aid, heart diseases, home

nursing, maternal and child care, mental hygiene, nutrition, respiratory diseases, skin diseases, tuberculosis. If the subject of venereal disease ranks as the most important of these, however,

it is because the problem has been neglected—hushed up—in the past and now demands realistic action. By BLAKE CABOT, *Mill & Factory*, February, 1945, p: 96:7

Making Your Retirement Plan Work

THE mere fact that an employee retirement program has been thoughtfully designed and economically assembled offers no assurance of its proper installation and satisfactory integration with the company's other compensation plans. If the retirement machinery has been constructed with a clear understanding of the employee's needs and the corporation's capacity to maintain it, two general conditions remain to be established by management to assure satisfactory operation of the plan.

The first includes the mechanical procedures that insure the accurate assemblage and timely flow to the officers, advisers, administrative institutions, governmental agencies, as well as to the employees concerned, of information respecting the rights to, type or cost of benefits under the plan.

Often the installation and operation of a retirement plan reveals the need for a redesigning and re-routing of such existing forms as may have been used by the company to collect other employment data. Sometimes, however, the information needed for administering Social Security and other employee benefits (such as hospitalization) can, with a few additions and rearrangements, be compiled on forms and used for the retirement plan. The basic forms required under any plan are the following:

1. An "individual data" sheet on which is recorded all personal and employment information for each employee in re-

spect to each type of benefit for which he is or may become eligible. At least the original of this form should be retained by someone responsible to or acting for the retirement committee.

2. A "change of status" form for use by various departments in the company in forwarding promptly to the retirement committee and interested departments, information pertaining to initial employment data or changes in any of that data, together with suitable explanations.

3. "Listing" forms for recording names of employees under various classifications, such as types of benefits, ages, salaries, dates of eligibility, etc. Included here are the forms required to maintain controls or registers showing employees eligible for various types of benefits and within various classifications of service.

4. Forms and letters required by the company, its retirement committee, institutions responsible for the administration of benefits, or by the employees and their families, in respect to eligibility for enjoyment of any benefits under the plan.

One of the most important forms in the last-named classification is the "employee's enrollment" form, which should include, in addition to such special information as the plan's terms may require, space for verifying the date of birth of the employee. Ages must be correctly established in order to assure an employee's receiving the correct amount of death and/or retirement benefits at the right time, and to assure the company of a fair cost therefor. Even when birth dates have been verified at the time of entrance, many companies and administrative institutions (including Social Security) require confirmation of age on or prior to the actual receipt by an employee or his beneficiary of a death or retirement benefit.

The second condition which must be established if the program is to function satisfactorily is the creation of that intangible product known as "employee satisfaction."

One of the best opportunities for insuring employee understanding of the plan lies in the appointment of a retirement committee. Where representatives of various employee groups have been appointed to serve with representatives of management on this committee, the sense of participation seems to produce increased employee satisfaction.

Second, a clear, frank explanation of the plan's provisions coincident with its installation, will tend to engender understanding by the employees. Distribution of carefully written booklets or letters, using non-technical terms and simple illustrations, is a prerequisite to comprehension of the plan's provisions. It is best to distribute such handbooks to all employees, regardless of eligibility, so that newer employees will be provided with an incentive for continuous faithful service.

In the interests of clarity and concise presentation, most companies limit the subject matter in the booklet to the retirement plan alone. However, some concerns have seen in the publication

of such a booklet an opportunity to review other compensation plans in operation, and so give an over-all picture of employee benefits provided by management.

Sometimes announcement of the new plan is made at employee-management dinners. Companies employing union labor often send full details regarding the plan to the representatives of the union—and may confer with these representatives—prior to announcing the plan.

It is extremely important that companies give thought to techniques for expanding the understanding and interest of employees in retirement plans after the initial explanation has been given. It has been found effective to direct an occasional letter from management to the employees on some subject closely allied to the operation of the plan or to the full enjoyment of its benefits.

Throughout it should be borne in mind that the payment of benefits accruing under a retirement plan affords management of one of its most favorable opportunities for personal contact with employees and their families. By ROBERT U. REDPATH, JR. *The Journal of Commerce*, May 15, 1945, p. 37:2.

Downgrading Agreement in Aircraft Industry

SIX aircraft-manufacturing companies and their employees recently arrived at a voluntary agreement—approved by the National War Labor Board—specifying conditions and terms for downgrading of jobs. The agreement covers some 200,000 employees and includes non-union workers as well as those who are members of the aircraft workers' unions. Downgrading will take place only in the event of (1) changes in production schedules and methods causing changes in job content, (2) correction of present misclassification of work, (3) reassignment at worker's own request, and (4) unsatisfactory performance.

—*Monthly Labor Review* 7/45

• THE FOLLOWING PROCEDURE has been established by the Army Training Service Command supervisors to develop initiative in employees: (1) Give orders with some obvious step omitted. (2) Give order with some less obvious points omitted. (3) Give an order in which only the general idea is stated. (4) Assign responsibility which includes the chance to work out details. (5) Watch for spontaneous ideas from employees.

—*Supervision* 6/45

Standards of Living in Wage Negotiations

IN utilizing living-cost data in negotiating wages, labor has shifted emphasis, according to recent indications, from indexes of changes in living costs to budgetary studies. It would seem advantageous for labor not to stress cost-of-living wage adjustments at a time when prices may be close to the peak since industry might insist on applying the same principle when they are declining. Hence the emphasis on budget studies, which do not indicate changes in living costs but show either the cost of maintaining a specified standard of living or the cost of the standard that is enjoyed by specified families at any given time.

Another important reason for the shift is the desire of labor leaders to raise minimum wage levels. Adjustment of wages only for changes in living costs does not provide for improved standards of living. Presumably, any increase in income resulting from a cost-of-living adjustment of wages provides only for the added cost of purchasing the goods and services previously bought. On the other hand, budgetary studies are valuable in making wage adjustments affecting living standards. Labor has also used budget studies to show that the standard of living of broad groups of workers is not so high as is desirable.

There are two principal types of budget studies now in use. The first involves pricing a specified budget. This was the procedure followed by the Textile Workers Union of America (C.I.O.) in preparing its study of "Substandard Conditions of Living," used in connection with its current wage negotiations before the War Labor Board.

In the other type, a study is made of

the actual consumption habits of families and the cost of maintaining the standard of living represented by their spending habits. This type is generally called an *expenditure* study and will be referred to as such here. Since these studies are quite different in method and purpose, it is better that each be considered separately.

The priced budget method is especially suited to determining whether wages of a given group of workers are adequate. The standard is predetermined, and it is necessary only to compare it with the wages received.

Certain questions must be resolved, however, before this method can be used. First, agreement must be reached on the standard to be considered adequate. A budget that might be used to decide the adequacy of minimum wage rates in one industry or region might be unsuited to another industry or region. Development of a budget is in itself a difficult task requiring the assistance of skilled technicians. Fortunately there are a number of budgets already available which are suitable for this purpose.

Much of the trouble arising from the use of this method results from disputes over items included in or excluded from the basic budget. Therefore, before any work is undertaken, whether the budget is one of those already available or one especially prepared, all parties concerned should agree on the over-all level and the inclusion or exclusion of items which might lead to dispute.

A principal shortcoming of most prepared budgets is that they do not provide for regional differences in expenditure habits and requirements for such items as clothing, fuel, housing

and food. The same standard can be represented in different parts of the country by budgets of quite different composition. An example would be the difference in housing construction and fuel consumption required to provide the same degree of warmth and comfort in New Orleans and Portland, Maine.

After the budget has been selected, the size of family to be considered typical is the second major problem. A separate budget for each family size existing in the group cannot be provided since that would imply a separate wage rate for each family size, a procedure which no company would care to undertake. It would also imply that workers should be compensated according to size of family rather than skill or productive performance. The better approach would be to utilize plant personnel records or tax records to establish a fair estimate of family size. It should also be borne in mind, when arriving at an average family size for low-income workers, that income can to some extent affect family size.

In addition to expenditures, some thought should be given to savings, which play an important part in family life. The amount to be included in the budget should be a matter of negotiation.

Disputes which generally arise over the inclusion of specific items or over the standard represented by the total budget can be avoided if both sides are truly interested in maintaining an objective approach to the problems to which this type of study provides an answer, and are ready to arrive, through negotiations, at a mutual understanding.

Care should be taken to avoid misinterpretation of the budget results. There may be a tendency, for example, to state that *all* workers should have

wage increases when only a portion of them are unable to maintain the designated standard of living. A series of small biases in the selection of families considered typical, inclusion of items in the budget, selection of sources for price data, etc., can bend the results in one direction or another, with corresponding effect upon the value of the study.

The expenditure-study method is valuable as a means of analyzing the existing living standard of a given group of workers and, if desired, of comparing this standard with artificial yardsticks previously established. It has one definite advantage over the budget-study method. Under the budget method an artificial expenditure pattern is constructed within the framework of the designated standard of living, and there may be a large variety of expenditure patterns for only one standard of living.

Expenditure studies are very expensive and time-consuming, and, therefore, they are not confined to small segments of workers, but applied to broad masses. An excellent example of the use of this approach is given in the United States Bureau of Labor Statistics bulletin, *Money Disbursements of Wage Earners and Clerical Workers, 1934-35*.

The expenditure study, like the budget study, requires the aid of skilled technicians. Inasmuch as it is seldom possible to include all families concerned in the study, the customary practice is to use a sample. Exactly what types of families are to be included must be decided, as well as the criteria to be used in the selection of the final sample of families.

If the study is to remain objective, the sample used must be reliable—that is, of sufficient size so that the addition

of reports from more families does not materially alter the results. It must also be proportionate—that is, family types, sizes, and other pertinent and distinguishing characteristics should be represented in the sample in the same proportion in which they exist in the entire group.

Expenditure studies are said by some analysts to be of little or no value in measuring the adequacy of wages to provide a desired standard of living—it is said that they show only how much families spend, without regard to the standard represented by such spending. But experienced analysts find expenditure studies a rich source of data for ascertaining the relative well-being of groups of workers in relation to other groups or to artificially established standards. Experts familiar with family expenditure studies find within the data collected in the course of a family expenditure study a wealth of clues, such as the proportion of expenditures going to purchase food, the

household facilities possessed, or the withdrawals or additions to savings, which indicate relative living standards.

Naturally, the grand total of family expenditures by itself is of no significance. It is only in analyzing what it buys, or could buy if properly spent, that the value of this type of study becomes apparent. It has the definite advantage of allowing room for optional or regional variations in habit within the framework of a specific standard of living.

The greatest danger of this method is the use of improper techniques in the conduct of the study. Failure to sample properly, to define amply the purpose and coverage of the study, and lack of an objective approach would tend to negate the obvious advantages gained from a carefully conducted expenditure study. By G. CLARK THOMPSON and MARY A. WERTZ. *The Conference Board Management Record*, March, 1945, p. 67:5.

Workers' Club Provides for Quick Transfusions

"HELP to save a life" is the working idea back of the Falk Life Savers' Club recently formed by workers at The Falk Corporation, Milwaukee.

The club is the outgrowth of the tremendous response by Falk employees to Red Cross calls for blood donations. Membership is entirely voluntary. Any employee may register and have his blood typed. The plant hospital is cooperating and will keep the records on file.

If an emergency requiring a blood transfusion arises, persons having the same type of blood as the patient will be notified, and a call will be issued for volunteers to help save a life.

A recent case at the plant brought a tremendous response. An employee was taken ill, and blood transfusions were called for. Within an hour 31 fellow-employees appeared at the hospital to offer their blood.

The Life Savers' Club hopes, through its organization, to eliminate unnecessary delays when an emergency occurs. Members benefit by having their blood types on record, should they themselves ever need a transfusion.

All members of the club are entitled to wear a specially designed pin.

—*Factory Management and Maintenance* 7/45

• A RECENT study of accidents indicates that workers over 60 years of age suffer only half as many accidents as those in their twenties. Also, older automobile drivers have fewer accidents than youngsters.

—*Management Information*

Production Management

Cutting Plant Housekeeping Costs

THE smallest savings are an inducement to improved operation. Sometimes there may seem to be no further possibilities for improvement but, when all the facts are dragged out in the daylight, the results are frequently surprising.

So it was when Manning, Maxwell & Moore, Bridgeport, Conn., started to scrutinize plant housekeeping. The first step was to analyze the materials used by matrons and porters, to see if best results were being obtained with the least amount of money and energy expended.

This analysis disclosed that porters and matrons had their own preferences for some particular sanitary cleaning products. As a result, when the inventory cards were checked, the usual accumulation of odds and ends of material showed up, located in several department stockrooms, and all representing money tied up in inventory.

The next step therefore was to establish standards for material and for its economical use. A representative of a national sanitary concern was called in to survey the plant and to make written recommendations.

After the recommendations had been submitted to the plant engineer and had been whittled down to bare essentials, it was decided to eliminate 21 items, retaining original materials that had proved most successful in operation.

Even then some of the items were duplicates, achieving like results in cleaning. Therefore, when all old stock had been used, five new items were ordered, and these cover the en-

tire range of industrial porter cleaning service.

The third step was to instruct all workers in proper use of the materials. They were first shown what to use and how to use it, then requested to demonstrate to the supervisor and the sanitary engineer. Next they were all given typewritten instructions, so they would not forget what each material was to be used for or how to use it.

One noteworthy result was obtained from a lusterizing oil used to dress partitions. Even though plant housekeeping was usually very good, occasionally someone would write on the walls. The lusterizing oil can hardly be noticed, but pencil and chalk will not register and the walls are free from markings.

It was interesting to note also that in placing notices in lavatories and about the factory, the lower a sign is placed the less likely it is to be marked up. A standard height of 4 feet was adopted as the one best seen and least mutilated. Rubbing notices lightly with the lusterizing oil makes them, too, difficult to disfigure. The effect of nice, clean signs about the factory is pleasing.

Every week all cloakrooms, smoking rooms, and the cafeteria are sprayed with insecticide. A small electrical compressor-type expeller that can be plugged into any 110-volt socket is employed. It expels a fine vapor, which has a pleasant odor and has proved successful in controlling pests. This work is directed by the supervisor of porters. One result is that plant

employees know that their clothes can be safely placed in any area.

The cost of this small portable unit and of servicing the various departments is about one-half of the charge formerly made by outside exterminators.

By proper scheduling of work, it was possible to reduce from six to four the personnel who cleaned the 30,000 square feet of office area. The extra two porters took over newly acquired areas made necessary by increased production. No additional personnel were required, and the new departments had the benefit of trained porter service, with little or no supervision.

The entire factory was then divided into sections. The total area to be cleaned was 200,000 square feet, di-

vided among a working force of 17 porters and four matrons.

Now each employee knows what he is responsible for and what is expected of him. He knows that a daily inspection is made by his supervisor, a weekly one by the plant engineer, and a monthly one by an outside sanitary engineer. Consequently, his cleaning standards must be maintained.

The net result is a housekeeping program that is economical and consistent. The employees have a cleaner place in which to work. And the jobs of porters and matrons are so laid out that they know what to do, what to use, and when and how to use it. By H. M. BRADLEY. *Factory Management and Maintenance*, July, 1945, p. 129:2.

Replacement Parts for Old Machines

ALTHOUGH accelerated production has brought about many changes in machine design and construction, much outmoded equipment must be kept serviceable for an indefinite period. It is the exceptional company that does not rely to some extent upon its old machinery. Accordingly, demand for replacement parts for old equipment presents an especial problem to supplying manufacturers, 25 of whom were queried by The Conference Board as follows:

"What length of time do you obligate yourselves to carry parts in stock for servicing discontinued equipment and what, if any, changes in present practices are contemplated?"

From the replies of 22 manufacturers, it is obvious that the general policy is to carry service parts in stock as long as a reasonable demand continues for them, and to hold almost indefinitely patterns, jigs, tools and

dies for making replacement parts to order.

For the most part, the responding manufacturers do not set schedules for maintaining replacement parts as regular stock items; nevertheless, they do afford facilities for producing them when necessary. In some cases the investment entailed in carrying stocks for obsolete units is a consideration, particularly when the parts are large or require costly machining. Sometimes such parts are stocked in semi-finished state, to be completed when needed.

Upon discontinuing a specific model, one company generally holds "a reasonable number of the parts in stock against repair service for the units that are out in operation. The patterns, however, from which the parts are made are held for an indefinite period. Some of them in our pattern storage have now been there for over 30 years. Therefore, if the conditions warrant a

part on a very old model being replaced, we are still in a position to do this."

"We have no established policy," says another manufacturer. "We often furnish repair parts for individual units which have been discontinued for 40 years or more. At one time manufacturers in our line of business agreed that they would furnish repair parts over a period of only 15 years after the unit had been discontinued. We appreciate the fact that it is very expensive to continue to provide spare parts for units which have been declared obsolete, but feel that this is one of the services that should be provided by our company."

By a ratio of more than three to one, the policies of the majority of the manufacturers queried incline toward rendering a fairly continuous service. Although it is true that some who offer parts service for an unlimited time have not reported obligating themselves to

stock spare parts for any definite scheduled term after obsolescence of the unit, their attitudes in this respect seem altogether reasonable and entirely equitable to the customer. The attitude of these manufacturers is fairly well summed up in the reply of one who said: "Our policy for a great many years and our policy in the future will be to produce service parts for stock as long as there is a sufficient demand to justify manufacturing them on some quantity basis. This quantity basis has, in the past, been as low as six pieces per lot, with as few as one lot per year. Our service parts policy is not dominated by the length of time the machine has been in the field because there are many cases where very old machines are still used economically." By FRANK L. BANG. *The Conference Board Business Record*, June, 1945, p. 199:2.

Black Light Used to Spot Flaws

AT Surface Combustion Company, ultraviolet light rays are used to locate small holes and other flaws in welded seams in aircraft heaters. A few drops of fluorescent fluid are placed on the inside of welded seams of the cylindrical metal sections used in each heater. Within 15 minutes the fluid has penetrated the most minute hole that might be present. The outside of the heater is then exposed to black light in a dark testing booth. Any hole or imperfection through the metal is revealed by a fluorescent glow.

The difficulty with conventional methods of inspection was that small holes were not always revealed until the entire unit had been assembled and tested. Under the new method, girls inspect 125 aircraft heaters a day, and there has been only 1 per cent rejects in the last 35,000 completed heaters. Before black light was used, five experienced men could inspect only 25 units daily and the rejects frequently were as high as 35 per cent.

—*Mill & Factory* 8/45

AMA PRODUCTION CONFERENCE

A Conference of the Production Division of the American Management Association will be held on Monday and Tuesday, October 29-30, at the Palmer House, Chicago.

Reserved-Time Planning for Production

IF production planning is to accomplish its potential results, there must be a carefully developed technique based on sound principles and characterized by the most simple and efficient details of operation. The procedure must be clearly understood by everyone who uses it or is affected by it, and it must be the same month after month, so that it will become second nature for every executive or foreman who makes a decision to understand how it should plan the operation as a whole.

The methods of reserved-time planning which are outlined here have been worked out on the floors of hundreds of factories and are practical, simple and effective. They make it possible to decide in advance what is to be done; to issue instructions which emphasize time and responsibility; compare performance with plans; and direct the attention of executives to points where their judgment and authority are vital.

Not only is there need for a definite planning technique but also for an effective method of installation. Experience has shown that it is far better to begin at the bottom in installing methods of management. For example, in planning it is not wise to start with general programs for the plant and move down to the schedules for the individual shops, because that method becomes too theoretical and does not win the understanding and support of the shop foremen. More effective and lasting results are attained if we begin the installation of planning methods down in the shops themselves, starting with the foremen and helping them plan the work to be done on their machines the following day. A few well-qualified men are trained to do the planning there, where they learn ac-

curately the capacity of the machines, the capabilities of workmen, and see at first hand the difficulties which face the foremen.

When the methods are under way in one department, a second installation is begun and then a third. As the installation progresses in these departments, over-all planning is centralized in an office which coordinates the various parts of the program. However, as full a measure of independence as possible is left to the various shops, and the central office directs only such activities as involve the entire plant. The staff of this office is composed of practical shop men.

These methods are never imposed ready-made but are fitted to the particular requirements of the plant. They do not disregard the special experience and knowledge which exist in a company, but draw out the best, codify it, and put it to daily use.

The Central Planning Office determines the over-all plan of operation for the production organization. It coordinates the flow of work to and between the various shops so as to assure maximum speed of production and effective utilization of facilities. It sets the objectives which each shop must achieve so that an order which involves numerous operations will move through the plant without loss of time and be completed by the promised delivery date. Central Planning does not set these objectives arbitrarily but only with full knowledge of the work in each shop.

Shop Planning then adjusts the portions of the over-all plan to day-by-day conditions within the shop. The organization in each shop charged with this function consequently plans in details for a day or two ahead by:

1. Making certain the shop can carry out the instructions issued from the Central Planning Office.
2. Assigning orders to the individual machines in such a manner that operation will be economical and in conformity with the best technical knowledge and conditions.
3. Foreseeing the causes of delay beyond the foreman's control sufficiently ahead of time so that these may be directed to the proper authorities for decision and action.

Shop planning methods can be described in a practical manner by considering their application in a shop of a specific type of industry—for example, a medium-sized machine tool plant. Production consists of a variety of light and heavy machinery, generally on order and to special drawings and specifications.

The Central Planning Office initiates work in the shop by issuing instructions to produce a certain part or assembly. The works instruction, or "shop order," specifies the part to be made, the material to be used, and when the part is needed.

The order is received by the shop planning man, who first makes certain that material will be available at the proper time. For example, a machine shop planning man checks with the foundry to make certain that castings will be delivered at the date specified by Central Planning. He also checks the availability of tools and any other special requirements for the job. He then assigns the work to the machines in the shop and reserves the time necessary for completion, but before making this assignment he must know the load on each machine or group of machines—i.e., when the work already assigned will be completed.

When the work has been laid out on Planning Charts assigned to the machines, the planning man and shop foreman prepare instructions for the daily operation of the shop. These instructions are issued in the form of a

Daily Order of Work, which is prepared in advance, showing how each machine is to be operated on the following day.

Planning the work ahead of the shop permits possible delays to be seen in advance. These are entered on an Expected Delay Report and referred to the Central Planning Office. This report lists the orders that were scheduled to be started but which cannot be started for reasons stated.

While shop planning is a staff function of the foreman, central planning is a function of the works manager. In addition, the Central Planning Office is the main point of liaison between the production and the sales department. Central Planning receives sales orders, converts them into shop instructions, reserves time for their execution, fixing beginning dates for the shop to work to, makes promises of delivery and sees that they are kept.

The head of the Planning Office trains and supervises both shop and central planners; makes decisions on exceptional cases confronting the central planners; works closely with the foreman, production engineers and superintendent in taking action on expected delays; and reports to the works and general managers on all questions concerning deliveries. He presents to the production superintendent, and frequently to the general manager, periodical reports required by them as to execution of orders and plans. The general manager relies on these reports from the Central Planning Office, along with the cost and budget reports, to give him a factual picture of the actual performance of the plant in comparison with the standards established.

Practically all contact between sales and production is through the Central Planning Office, and the latter has the responsibility of representing the customer's point of view in the plant. In

an engineering works, or other plant manufacturing to special order, the planning head and the sales manager examine together the backlog of work and the progress of important contracts. When an order comes in, the sales department makes out a sales order, stating what is wanted and when it is wanted, and sends this order to the Central Planning Office. The salesmen are encouraged to know and keep in touch with the Planning Department and to build up their business on the basis of delivery promises accurately made and respected.

The operation of the Central Planning Office requires the development of Master Route Cards, i.e., lists of required operations for each product. The purpose of these cards is twofold: first, to aid the Central Planning Office in converting the sales order into instructions for the shops; and second, to provide a means of reserving the proper time for each operation required.

Using the master route cards, Central Planning prepares shop orders for the foundry, machine shop, and other production units in the plant. The shop order specifies the work each shop is to do and when it must be completed to meet assembly requirements.

When the load of orders already planned makes it impossible to fit in a new order to meet the delivery date requested by the sales department, Central Planning has the facts on its charts to permit one of the following decisions:

1. Propose to the sales department a delivery date later than that asked. (Often a later date, to which the work will be planned in detail and which will be respected, is more acceptable to both salesman and customer than the uncertainty of a favorable promise with little or no assurance that it will be kept.)
2. Plan the new order for delivery on the date asked, through overtime or use of machines which are not so well adapted to the work but have the

advantage of being less loaded, or through other adjustments of a technical nature.

3. Plan the new order in place of an existing order, showing the facts on the charts to the sales department and asking for a decision as to which order is to have preference.

The Central Planning Office deals in this way with any rush order that may arrive. No matter how loaded the shop may be, the charts show accurately and for weeks ahead just where the new order may be fitted in with least delay to other orders on hand.

The shop order is the principal instruction that goes from the Central Planning Office to the shops. The flow of information back from the shops to the Central Office includes the Order of Work for the next day, the Expected Delay Report, the completed Order of Work sheet for the day just ended, and the completed shop orders. Their use in the Central Planning Office is threefold:

1. To provide information as to progress of work to the management in time for effective decisions to be made.
2. To keep the Central Planning charts in accordance with actual conditions in the shop so that new orders can be accurately planned.
3. To centralize complete information day by day on the progress of manufacture of every order in the works.

As the personnel of Central Planning acquire experience, confidence and skill in their work, they develop a technique which goes far beyond the bare routine movement of orders. They tackle some of the broader aspects of planning, such as the load of work ahead of the plant and summaries of progress on important orders.

While the Central Planning charts show in detail the amount of work on each machine, order by order, a summarized picture of the over-all load of the plant is obtained through Load Charts. A chart is prepared for each shop and for the whole plant.

The Load Chart is similar to the Planning Chart in that it shows how much work is to be done, but it does not show details, merely giving classes of machines and the hours of work to be done. It is not a record added to day by day but an analysis of a situation at a given moment. The Central Planning Office uses this Load Chart in making quick estimates of deliveries on inquiries from the sales office, prior to the detailed reserving of time for orders on the Planning Charts.

The Plant Load Chart is intended mainly for the works manager and general manager. The head of planning arranges to have the chart drawn accurately and swiftly on a given date each fortnight, which is not difficult as the information is derived from the Central Planning Charts. He presents the chart of the executives at a regularly scheduled meeting.

If there is a *great amount of work ahead*, the executive can make decisions as to: what deliveries may be quoted on future orders; what kinds of orders must be declined; where congestion is likely to occur, so that the processes affected can be studied and shortened or improved; what additional equipment to buy; how many men to employ, and the kind of work they will have to do; and where working hours need to be lengthened.

If there is *not enough work ahead*, the manager can learn from the chart: what kinds of orders are needed to keep the men or equipment busy (this information may be the basis of sales or advertising campaigns, reduction in prices, etc.); what men to assign to other work; what equipment can be disposed of; where hours should be shortened.

The outline which has been presented covers only the more important aspects of an established technique of

planning. In actual practice a completely coordinated method of management is installed in the production organization. Along with the introduction of the methods, instructions are developed for their operation, thus assuring uniformity and permanence.

In summary, this technique of reserved-time planning:

- Increases the output of workmen because their work is better prepared for them.
- Poor workers are trained and developed until they make good.

- Shortens the production period by reduction of lost time between operations.
- Emphasizes that time is the most important element in production.

- Uses machines more efficiently by assigning work for which they are best suited. Machines and equipment are kept in better condition.

- Permits more accurate delivery promises, thus improving customer relationships.
- Foresees delays and avoids them by planning work in advance.

- Tells the management at any time exactly where an order is and when it will be completed.

- Shows the work load on each department and the over-all plant load.

- Relieves executives from supervision of details of plant operation by bringing to their attention only matters requiring executive action. Minor functions of management are routinized.

- Enables subordinates to shoulder more responsibility and develop initiative because their jobs are clear-cut and their performance is measured against a fair standard.

- Produces a unifying effect in the organization by providing coordinated action and a common objective.

- Places definite responsibility in advance for getting work done.

- Causes a swifter flow of work through the plant, which automatically reduces inventories of work-in-process and finished products.

- Provides records of production time which permit the development of accurate cost determinations immediately upon completion of an order.

- Enables executives to base their decisions on facts rather than on opinions of individuals.

Abstracted from a study by Wallace Clark, published by Wallace Clark & Company, 521 Fifth Avenue, New York 17, N. Y.

Marketing Management

Industry's Use of Sales Aptitude Tests

THOUGH the question of the value of sales aptitude tests is highly controversial, and articles on this subject in scientific journals and trade magazines are often sketchy and contradictory, sales executives have displayed an increasing interest in testing during the past five or six years. There are several reasons for this trend. One lies in business men's realization of the widespread use of all sorts of tests for determining the aptitudes of recruits in the armed forces. Another lies in the fact that many concerns will have to hire almost a complete new sales force when the manufacturing of peacetime goods of all types is resumed. Because the trend is away from rule-of-thumb procedure, many sales executives are seeking more scientific sales selection techniques.

Before the use of sales aptitude tests can be recommended, however, there are some major points which should be clarified. (1) To what extent are tests used for selecting salesmen? (2) What types of test are used? (3) What specific benefits do users claim for tests?

To secure information on these points, a critical study has been made of published material concerned with testing and of the actual opinions of sales executives. Altogether 500 questionnaires were sent out to officers, mostly vice presidents in charge of sales or general managers, of companies representing a cross-section of many different types of industry. In

addition, 50 of the executives were personally interviewed.

Replies received from more than 70 per cent of the executives to whom questionnaires were sent indicated that 10 per cent of the companies use tests now or will use them when hiring of salesmen is resumed; 5 per cent are in the process of experimenting with tests; 85 per cent do not use tests.

The fact that so small a percentage of concerns are now using tests for selecting salesmen is not in itself a reflection on tests. For the most part, the inclusion of tests in selection procedures is dependent upon factors which are peculiar to the individual companies. Typical reasons given as to why tests are not used were that the company was small and there was very little turnover in personnel; that salesmen were selected from within the organization only; that potential salesmen were recruited at college campuses—on the basis of college performance records and professors' recommendations; that the interview technique without testing procedures was found satisfactory; etc.

Only about 4 per cent of those not using tests stated that they had tried them and found them worthless. At the same time, 8 per cent of those who had never used tests stated that they were definitely interested in improving their sales selection procedures and were reading published reports on tests in technical and trade journals.

The fact that roughly 10 per cent of the respondents found sales tests use-

ful in a number of ways, as will be pointed out later, and are going to use them in hiring and training salesmen, while other concerns found tests worthless, presents an anomalous situation. Just why did some find tests successful while others found them impracticable? There were two items in the questionnaire that bear on this point: (1) Did you develop the aptitude tests yourself, or did you consult a competent psychologist or sales testing organization? (2) What standard tests did you include in the battery you used?

It developed that some concerns, after deciding to use tests, just bought a batch of standard tests and tried them out without any preliminary preparations; they merely gave the tests and scored the results. Others used sales aptitude tests that were mentioned in trade journals. Still others reported that they formulated a battery of tests which they thought would be practicable. Several hired amateur psychologists and gave them the job of working out a testing program.

Many executives seem to feel that if they grope blindly long enough, something will turn up that will work; that by continuous experimenting with various tests a series of statistics can be evolved which will disclose a selection pattern that is somewhat superior to chance. However, such a procedure would take a long time indeed, since there are many different types of standard tests on the market. The Psychological Corporation, for example, claims that there are over 30,000 tests catalogued, and other sources indicate that 4,000 tests are now in use. It is not clearly realized that the administering and interpreting of tests is a highly complex and technical task requiring good judgment, wide experience, plus a thorough knowledge of the

limitations of any test. The administrator must understand clearly what traits and qualities he wishes to measure; these will vary according to the company, the product and type of sales approach, as well as the people with whom the salesman must come in contact.

An impressive number of tests were listed on the questionnaires as having been employed. The following were most frequently mentioned:

- Otis Self-Administering Test of Mental Ability
- Bernreuter Personality Inventory
- Strong's Vocational Interest Blank for Men
- Social Intelligence Test, by F. A. Moss, T. Hunt and K. T. Omwake
- How Perfect Is Your "Sales Sense?" by Canfield
- Washburn Social Adjustment Inventory
- Wonderlic Personnel Test
- Bureau Test VI—Mental Alertness
- Interest Inventory for Sales People (The Personnel Institute, Inc.)
- Vocational Aptitude Examination, Type E-A, by G. U. Cleeton and C. W. Mason
- Composite Inventory and Examination, by Verne Steward
- Aptitude Index, by Life Insurance Sales Research Bureau
- Humm-Wadsworth Temperament Scale
- American Council on Education Psychological Examination
- O'Connor's Vocabulary Test
- O'Rourke Mechanical Aptitude Test

There was absolutely no uniformity as to the number and types of tests used. Some companies used only two; others tried as many as four. A number of concerns employed an aptitude testing organization using a battery which included six standard or stock tests (the first six on the above list). The best results were reported by 40 companies in diversified lines that used these six standard tests.

Why were the same six standard tests effective in selecting salesmen for various types of selling? It is because they measured the traits and qualities that characterize, in differing degrees,

all successful salesmen. By agreement of psychologists and practical counselors offering testing service, the traits and qualities found in successful salesmen are:

- (1) *Emotional stability*: This refers to the ability to take turn downs without losing self-control or becoming depressed.
- (2) *Self-sufficiency*: the ability to work independently and constantly attack fresh problems.
- (3) *Objective-mindedness*: the ability to face facts and report them honestly.
- (4) *Dominance*: the ability to control and direct interviews.
- (5) *Self-confidence*: belief in the individual's own ability to "get what he goes after."
- (6) *Social-mixing qualities*: These qualities simply show that the person desires and needs human companionship in groups.
- (7) *Tact and diplomacy*: These are two very important qualities which indicate that the person has the ability to handle delicate inter-human situations with such smoothness as to instill a maximum of good feeling in others.
- (8) *Social judgment*: the ability to recognize during the course of an interview the mental and emotional state of others from what they say, their facial expressions, and the way they act.
- (9) *Sense of humor*: Includes the ability to take a kidding.
- (10) *Sales aptitude*: a genuine interest in selling and a natural flare for convincing others.

- (11) *Mental ability*: as demonstrated by speed of thinking, quality of thinking, and ability to follow instructions.

These, then, are the basic qualities which every salesman should possess. In addition, tests should measure and should be interpreted in the light of other aptitudes which are required by the particular type of selling, the particular product, and the company.

What benefits are claimed for tests? They screen out those who are unfit or likely to fail, and help to select those who can be successfully developed. In this way turnover is cut down and training expense reduced. Tests enable supervisors to work with good men far more satisfactorily after they are hired. They make it possible also to spot potential executive talent among sales applicants.

Sales testing can never displace judgment. Both the interview and the critical study of the personal history items in the application blank must be continued in the selection program. At the same time, however, tests can materially supplement other selection tools. By J. ROBERT HILGERT. *Harvard Business Review*, Summer, 1945, p. 484:9.

Back to Distribution Costs

CAN distribution costs be analyzed in such manner as to provide a sound basis for the direction of distribution effort and the control of its cost—and, if so, how? The answer is both that they can be and must be. Accomplishment of this task is in its early stages, but it can be done through the joint effort and ingenuity of marketing and accounting executives.

There are three methods of analyzing

distribution costs: (1) by the nature of cost items or object of expenditure; (2) by functions or functional operations performed; (3) by the manner in which the distribution effort is applied. In most companies it is necessary to apply all methods, at least to some extent, in order to supply marketing executives with the information necessary for the efficient direction and control of distribution costs.

Analysis by nature of items or ob-

ject of expenditure: By this method salaries, advertising, supplies, taxes, traveling expenses, etc., are recorded separately. Such classification of cost items is usually made a part of the ledger accounts themselves and forms the basis of subsequent analysis.

An analysis by nature of cost items provides some general information for cost-control purposes. If, for example, traveling expense is recorded in a separate account, it will be possible to compare the expense with previous periods and determine the ratio of the expense to sales volume. Such comparisons may reveal weaknesses if they are extreme; but they will not reveal the fact that the cost per mile of operating salesmen's automobiles is excessive or that many calls are being made on customers whose business, actual or potential, cannot possibly justify the traveling expense involved. By this type of analysis, therefore, it is possible only to ascertain the cost of the distribution function as a whole. Before that cost can be reduced, it must be analyzed to the point where it is known just what operations are too costly or unproductive and who is responsible.

Analysis by functional operations: Here it is necessary first to resolve the distribution activity into specific functional operations. The following are illustrative of a few such operations in a wholesale house: typing country mail orders of 10 lines and over; registering country orders; order picking; packing, weighing and stamping parcel post; opening and checking cases of assorted merchandise; etc.

Having established such functional operations (usually several hundred), a standard cost must be set for each operation. The procedure then is the same as that commonly used with production costs—namely, actual costs are determined and adverse variances are reported and corrected.

The functional analysis not only serves as a control device but also facilitates the analysis of costs by manner of application. Thus if an analysis is being made by classes of customers, it is necessary only to record the number of units for a certain functional service applied to a particular class of customers, and multiply this number by the functional unit cost, to determine the share of the functional cost applicable to that class of customers.

Analysis by manner of application: This method determines the direction which is being given to the distribution effort by establishing distribution costs of different territories, commodities, customers, channels, operating units, order sizes, etc. It is necessary for an individual concern to select from such possible analyses the ones which will give its operations proper direction. Frequently it is necessary to make cross-analyses; for example, costs may be analyzed by territories and the cost of each territory then further subdivided according to commodities or sizes of customer orders.

After selecting the cost analyses to be made, the next step is to classify the individual cost items in accordance with the directness of their relationship to each particular analysis. If, for example, an analysis is to be made by territories, then it must be known which costs obviously and directly relate to individual territories and which ones bear only an indirect or remote relationship. This is an important step. Unless some close relationship can be established for the major part of the costs, the validity of the results will be questioned by executives and they will be reluctant to use them.

For the purpose of analysis by application, distribution costs may be divided into three major groups: direct costs, semi-direct costs and indirect costs. Direct costs, as the term implies, are those which can be definitely

allocated. Thus, in an analysis by territories, the salaries of salesmen, who work exclusively in individual territories, are direct costs of those territories. The classification of accounts in itself usually expresses this direct relationship in some one direction.

Semi-direct costs are those which are related in some measurable way to a particular analysis. The charges cannot be made immediately and directly, but a dependable basis of measurement is available. For example: The cost of packing may be distributed on the basis of physical volume; the cost of billing, on the basis of number of orders or number of lines of billing; or the cost of credit supervision, on the basis of the number of customers.

Indirect costs are those costs which admit of no measurable relationship with any one territory, product or channel of distribution, as distinguished from any other. They are recognized as a general charge on the total business; and, therefore, when they are apportioned, some arbitrary basis must be used. Examples of this

type of expense are the salaries of general executives, and institutional advertising.

A word of warning is in order: Management's purpose will not be served by merely tabulating the distribution costs of the various classes of customers, commodities, etc. The problem is far more complex. The cost analyses require painstaking interpretation with numerous answers. Management is seldom faced with the simple problem, Shall we sell in territories A, B or C or to customers X, Y or Z? The problem is usually to make one choice of numerous possibilities of combinations of distribution factors. For example, what sales methods can best be employed for certain types of product to particular classes of customers in selected territories? No mathematical formula will automatically evolve such answers, but a basis for managerial decisions will be provided if the cost data are at hand and are skillfully interpreted. By J. BROOKS HECKERT. *The Journal of Accountancy*, June, 1945, p. 456:5.

Sales Agents and Their Job Rights

DOES Section 8 of the Selective Service Act apply to dealers and sales agents as well as "controlled" employees? This is a question which is bothering many sales managers, as a result of a lawsuit brought by a discharged veteran against an automobile manufacturing company. The veteran holds that he was the company's dealer in his town before he was drafted, that somebody else obtained his franchise while he was in service, and that he is now entitled to have it back. This situation raises the question of whether a dealer is an employee within the meaning of the Selective Service Act.

If this question is to be decided by the courts, sales managers should be able to prove that under the terms of the agreement between the company and its sales agents, dealers and distributors, the latter are not employees but independent contractors. As such, their inability to carry out their agreement automatically cancels their franchise. Selective Service advises that this is a matter which the courts must decide—but chances are that each court decision will be based upon the peculiar conditions of the agreement between the company and the agent. A series of court decisions will be needed to clarify the situation.

In the meantime, sales managers should exercise caution in refusing to reinstate franchises formerly held by servicemen. Permitting such cases to go to court is bad public relations. A better way is to find some other spot for the returned veteran, or the dealer who currently holds the franchise, if possible.

—Dartnell News Letter 7/7/45

Packaging

The Value of Color in Packaging

IN RECENT YEARS packaging has become a fine art. New ideas, new principles have been put to work by almost every organization. The growth of packaged merchandise, particularly with the advent of the supermarket, has demonstrated that successful marketing demands not only a quality product at a fair price but real eye appeal and attention-getting value. Design and color, skillfully employed, help to sell merchandise and well support the attendant efforts put into advertising, posters, displays, dealer helps, etc.

While it may not be possible to establish any ideal specifications for the use of color in packaging—because of the widely divergent requirements of different products—a review of some companies' experiences may be helpful:

One western maker of food products (mayonnaise, salad dressing, etc.) states that records and charts have been kept to measure the sales increases brought about with new designs and color combinations. He writes: "We have found that dark blue and bright red are the outstanding colors. Red, although a greater impulse color, has moved into second place in our operation." To capitalize on the apparent value of these two hues, he recently produced labels incorporating both colors on white stock. "We have been more successful than we ever imagined; the response was immediate."

A definite trend is to be noted in the increasing use of process illustrations for foods. A recently designed series of labels, involving natural-color photographs combined with a vivid blue band, have helped to effect a steady in-

crease in the sale of meat products for one packer.

Here are some results of a recent study of the use of color in packaging food:

An analysis of 1,755 labels of 120 leading canners indicated that 49.6 per cent used four colors in labels; 37.2 per cent used five colors; 5.1 per cent used six colors; 4.7 per cent used three colors; 2.2 per cent used two colors; and 1.1 per cent used only one impression.

In the one-colored group, blue ranked highest, brown next. Red and blue were most popular in two-color labels, red and black second, red and green third, and yellow and blue fourth. The leading combinations in three-color labels were red, yellow, blue; red, blue, gold; red, green, gold; red, yellow, black.

In four-color and five-color labels, red, yellow, blue, black, combined with light blue, constituted the choice of the vast majority.

Because many food labels bear realistic illustrations, the process colors (red-yellow-blue) are naturally in predominance. However, if there is any strong predilection beyond the primaries, it is overwhelmingly in favor of light blue "as a supplementary color to provide special emphasis for borders, lettering, letter shading, or some other detail of the label."

An industrial designer quotes figures on sales increases for five products. These range from 33.4 per cent plus to 410.0 per cent plus (sales for one year as against the previous year). He states, "The products in question underwent no change in promotion

other than design changes." In these cases deliberate attention was paid to visual and psychological factors in the use of color. The following color combinations were employed: green and black on white; red and warm gray on white; maroon and red on white; red and black on bluish gray; dark green and light green on ivory. "In each case the colors used were selected with regard to (a) the function of the product—i.e., to soothe, to cool, to wash, to warm, etc.; (b) appeal—i.e., to men, women or both; and (c) display value."

A bottler of wines writes, "Due to colorful Christmas and Easter packages, our wines have enjoyed a 92 per cent increase in sales during the presentation period."

Package design with color seems to be concerned mainly with attention-getting, product identification, and memory values. Because such factors are more vital than mere esthetic appeal, it seems logical that most manufacturers have enjoyed greatest success in the use of primary colors.

Red and blue, one a color of high recognition, the other a color of universal appeal, are predominant and rank almost equal in preference. Yellow, the color of highest visibility in the spectrum, naturally finds widespread use in many different packages. Green, which ranks fourth, seems to

lend itself chiefly to certain restricted uses.

Other than these four colors (recognized as primary by the psychologist), few added hues or tones are employed. And probably for a good reason. While odd shades, blue-greens, yellow-greens, lavender, pink, etc., may be individually and intrinsically beautiful, they lack primitive and primary qualities and hence fail either to compel the eye or impress themselves on the memory.

Finally, here is a check list of objectives in the design and coloring of a package. These six points should aid the manufacturer in achieving satisfactory and profitable results:

1. The first duty of the package is to catch the eye. Here color is perhaps most vital.
2. Second, the package should afford quick identification of the product. Here typography and design are important.
3. Third, the design and color scheme of the package must be appropriate to the contents.
4. The fourth duty of the package is to please the eye *and* the emotions. A startling package may catch the eye at first, but later be regarded by the consumer with distaste.
5. Fifth, the package should invite handling and further examination. Here is where neat details count and where the customer is urged to open his pocketbook.
6. The sixth specification of a good package is that it be well constructed, handy and durable.

Advertising & Selling, May, 1945, p. 66:5.

CORRECTION

In a footnote to a paper by Mr. J. H. Goss, of the General Electric Company, on the company's testing device, published in *AMA's Packaging Series #13*, the statement was made that "General Electric is not at present planning to manufacture this device for sale." We are advised that so many requests for the device have been received by the company that the instruments are being put in production and will shortly be on sale.

Inquiries should be addressed to: Mr. J. H. Goss, Engineer, Works Laboratory, General Electric Company, West Lynn Works, 40 Federal Street, West Lynn 3, Mass.

Financial Management

Increasing the Controller's Usefulness to Top Management

FOR about 20 years prior to this war, the position of controller had increased steadily in usefulness to top management, with a resulting growth in status for the controller as corporation officer. But just before the war there was a reversal in this trend. Since then the controller's usefulness to top management has declined sharply.

It should be recognized that controllership has not declined in usefulness to the corporation—only in usefulness to top management. This is an important distinction, for, it should be remembered, the position of controller was conceived primarily as an instrument for helping other executives do their jobs better. The following are the principal causes for the decline in service to top management:

1. *Many controllers have sought and acquired excessive responsibilities.* In their struggle for recognition and authority, controllers in numerous companies have overreached themselves.

These controllers have attempted to bring into their departments as many routine accounting and clerical activities as possible. Actually, a large proportion of such duties could be just as readily performed by the treasurer or some other executive, leaving the controller freer to do his analytical work. In some cases controllers have even gone so far as to take over direct line authority of such plant activities as time study and the setting of standards. Extended supervisory activities tend to interfere with performance of the controller's primary functions.

2. *Governmental and wartime regulations, taxes, and other increasing complexities of business have overburdened controllers with many new duties.*

Social security routines, wage and salary stabilization filings, war bond payroll deductions, government questionnaires, contract termination procedures, income tax problems—these are only part of the burden with which the controller must struggle. So much of the controller's attention has been demanded by these activities that he has had little time to furnish service to top management.

3. *Many controllers have lost sight of their most important and interesting responsibility: providing service to top management by helping the chief executive and the executives in charge of sales, manufacturing, engineering, finance and personnel relations to increase the effectiveness and decrease the cost of the activities under their direction.* Many controllers do not seem to realize that their job was set up because the chief executive and the heads of the major divisions required assistance by another major executive who would analyze their activities, interpret financial and operating results for them, and thus help them do their own jobs better.

If these are the factors limiting his services to top management, what should the controller do to correct the situation? Here is a suggested program:

1. *Reorganize to eliminate routine activities.* The controller who finds himself overburdened with miscel-

laneous operations should arrange, through the chief executive, for reorganization of the responsibilities of the treasurer's and secretary's divisions as well as his own. In such a reorganization it should be possible to fix responsibility for directing many routine activities now in the controller's division to the treasurer's division, and to the secretary's division if it is separately organized.

Another possibility lies in reorganizing the controller's division itself so as to provide added executive assistance for the controller. For example, additional assistant controller positions can be established and responsibility for directing administrative routines delegated to these new executives.

In many companies a fallacious belief exists that it is costly to add executive positions of this type. This is true only if the time made available to higher executives as a result of such appointments is not profitably employed. The addition of one or two assistant controllers enables the controller to render service to other executives which may result in profits many times over the added salary cost of the new positions.

2. *Develop the operating viewpoint.* Many controllers—particularly those with a public accounting background—are today preparing reports for executives from a financial, rather than operating, viewpoint. Such accounting does not give maximum help to the operating executive.

To correct this situation, controllers should thoroughly overhaul executive reports in the light of operating needs of each executive for whom the reports are prepared. The controller himself—or a major assistant who can gain the confidence of other top-management executives—should have a heart-to-heart talk with each executive

for whom reports are prepared. In such a discussion, candid comments on the deficiencies of current reports should be sought and suggestions obtained as to what added information the executive requires.

In short, the controller should turn out tailor-made reports for each specific purpose. He should be sure that the information he prepares for every executive will help that executive do his job better, even though he has no comprehension of accounting principles.

3. *Increase the usefulness of executive reports.* In addition to reflecting the operating viewpoint, executive reports should be prepared so that each executive is given figures which reflect the results of activities *under his direction*. Meeting this standard may call for a rearrangement of many statements. One of the principal deficiencies in the typical statement is that the figures presented to a particular executive contain many cost and expense allocations involving activities over which the particular executive has no control.

Reports should compare actual results with previously established standards. In most well-managed companies today, budgetary control provides a sound basis for establishing standards with which current results may be compared. However, when revising statements many controllers will find opportunities for establishing additional standards with which current results may be compared.

4. *Assist executives in understanding reports.* Many controllers are subject to much criticism because the executives for whom they prepare reports do not understand how the reports are made up and are unable to comprehend their significance adequately. If, in revising his reports, the controller carefully considers the requirements of ex-

ecutives, a sound basis for understanding will have been laid.

But it is necessary for the controller to go further. Periodically he should sit down with each of the key executives who use his reports to discuss how the reports are prepared and what individual items on the statements mean. Often executives who have no understanding of accounting are reluctant to admit that they need help. Helping them to understand the substance of the reports not only insures their usefulness but creates in executives an awareness of the job the controller is doing.

5. *Interpret reports for executives.* To perform this function well, the con-

troller must have an adequate amount of time to study the data. Next, he should have a sufficient understanding of company operations to be able to interpret his figures in the light of operating problems and in non-technical language that other executives will understand.

If the controller lacks background on company operations, he had better get out into the plant, into the branches, and into the field. No controller today can provide outstanding service to top management unless he is familiar with the operations of the business from first-hand observation. BY MARVIN BOWER. *The Controller*, March, 1945, p. 124:3.

Economic Aspects of the Public Debt

ON Pearl Harbor Day our national debt was about \$62,000,000,000. Today it exceeds \$230,000,000,000, and it may be well beyond the \$300,000,000,000 mark before the full cost of the war has been met.

What does so colossal a debt mean to us? A lively controversy prevails as to its economic portent, some people arguing that the increase in the debt means almost certain ruin, others that it has no important economic significance. Probably the truth lies somewhere between these two extremes, and the actual effect of the debt increase will depend in large measure upon what we, as a nation, do or fail to do in a number of other important respects.

British experience is frequently cited as disproof of the idea that more and more spending and a bigger public debt necessarily spell economic disaster for a nation. There is no denying the

fact that over the past two centuries British national debt rose tremendously without the resultant economic disasters which were so generally feared by contemporary observers. The important point, however, for us to learn from British experience—and one which has been missed by many who like to point to the British record—is that each successive increase in the debt was matched by a tremendous growth in economic activity and private enterprise.

During this period of British history, there was a tremendous upsurge in cargo tonnage cleared, in pig iron production, and in coal production. Growth in population was greatly outpaced by economic growth. This difference emphasizes the dynamic nature of the economic growth which took place in Britain. Clearly the lesson to be learned from British experience is not that increasing debt is harmless but

rather that it need not prove unduly burdensome or ruinous if it is accompanied by a proportionate or bigger growth in economic productivity.

The debt record of the United States embraces a shorter period than that of Great Britain, but in broad outline it follows the same general pattern of development. Beginning in 1850, our public debt (federal, state and local combined) rose from less than a half billion dollars to approximately \$245,000,000,000 at the end of 1944, the major increases, as in the case of Britain, occurring in times of war.

It is important to remember that the burden of debt is relative to the productivity of the debtor. Through the years—and particularly the past five years—America has demonstrated her ability to produce. There is no way in which the economic problems of America can be solved with greater assurance of permanency than by a concerted effort to maintain a high and ever-expanding level of economic productivity.

The danger of wild inflation is widely discussed, but the fact remains that we haven't had price inflation yet (witness the relatively moderate rise in our commodity prices during recent years). While the full explanation lies in a complexity of economic relationships, the key reason is that American productive ingenuity and private enterprise have combined to bring forth a deluge of goods and services. In the war period, when the production of civilian goods was necessarily curtailed, reasonably effective price control devices have been applied. However, in the postwar period, when price controls will naturally be less effective, our best protection against price inflation is to free the forces making for expansion in private enterprise so that our vast production potentialities are

fully exploited. We possess the ability to match the greatly expanded money supply with an ever larger supply of goods and services and, if we do so, the risk of uncontrolled inflation will be remote.

It is frequently said that we need not worry about the national debt because we owe it to ourselves, but this idea can be at best no more than half truth, for so rapid and great an increase in our debt as has occurred in recent years cannot fail to leave us with serious financial problems at war's end. Our national wealth and income will have undergone a material redistribution, much of the cost of the war will have been "monetized" by the sale of government securities to commercial banks, and many real disruptions to our normal economic processes and relationships will have occurred. The ultimate consequences of an increase in debt such as this nation has experienced will depend upon the wisdom of our decisions in determining the economic and political policies to be followed in the postwar period.

In certain respects the economic signposts appear relatively clear. It is obvious, for example, that relatively high taxes are inevitable for an indefinite but prolonged period ahead. In all probability, the cost of servicing the federal debt in the postwar period will alone exceed our largest peacetime budget prior to the 1930's. And there is scant reason for doubting that many of the other costs of government in the postwar years will be well in excess of their former peacetime amounts. Clearly this means that government revenues must be held at high levels and, as a corollary, that our national income must be maintained well above our best prewar performance—not alone in dollars but in terms of physical production. Lower rates of taxa-

tion will be more feasible if our national income is high than if it is low, for the burden of taxes is a function not only of rate but of ability to pay. It seems clear, therefore, that in redrafting our tax laws for the postwar period the emphasis should be upon the objective of unleashing capital investment into productive enterprise so that our economic organization can function effectively without the stimulant of deficit spending. The real burden of servicing our postwar debt would then be reduced.

In the investment field the results of our vast expansion of public debt will be felt in many ways for a long time. At the peak of the federal debt after World War I, U. S. Government obligations amounted to a much smaller proportion of the total outstanding volume of so-called "investment grade" securities than will be the case this time. According to estimates prepared by the National Bureau of Economic Research, the total of outstanding corporate bonds of Baa or better quality amounted to roughly \$16,500,000,000 in early 1920 and \$15,500,000,000 in mid-1944. U. S. Government debt reached a high of approximately \$26,600,000,000 in 1919, as compared with \$232,000,000,000 at the close of 1944. In other words, the Federal Government debt comprised about 60 per cent of the combined dollar volume of U. S. Government and "investment grade" corporate bonds at the end of the last war, whereas the corresponding proportion now is already over 90 per cent. Hence it seems clear that since U. S. Government obligations will not only be pre-eminent in quality but dominant in size of market in the postwar period, they will continue to be, as they now are, the principal outlet for the funds of institutional investors.

The authorities are confronted with the colossal problem of managing a federal debt that may well approximate from 11 to 13 times as much as that with which we closed World War I. This task is complicated by the fact that the debt has been financed at very low rates of interest compared with those at which the last war was financed, and its distribution as to maturity and class of holder leaves much to be desired. Thus financial statesmanship of the highest order will be required.

Management of a debt of \$300,000,000,000 can—unless conditions are propitious—bring about many restrictions on the investment freedom of the financial mechanism. It is hoped, however, that, by the concerted effort of the financial community and the fiscal authorities, an increasing proportion of the debt can be placed in the hands of the public on a permanent investment basis. That an opportunity exists for placing a greater proportion of the government debt in the hands of the people is clear from the vast amount of savings that have been thus far only partially tapped. According to figures released by the S.E.C., liquid savings—currency and bank deposits—in the hands of individuals and unincorporated business have accumulated to the total of approximately \$44,000,000,000 in the period since 1939. It would be salutary if future offerings of government securities could attract a greater proportion of the funds held by individuals and if less reliance were placed upon subscriptions based directly or indirectly upon commercial bank credit.

From an address prepared by Murray Shields for the 26th Mid-Winter Trust Conference, American Bankers Association (*Commerce*, March, 1945).

What's Wrong with Tax Administration?

DELAY in processing returns, claims, etc., is the most serious fault business men find with the Internal Revenue Bureau, according to a National Association of Manufacturers' survey covering 3,255 companies. The main tax administration complaints of industry, which fell into nine different classifications, have been turned over to Bureau officials for study.

Here is how management ranks tax-administration problems:

Problem	Per Cent
Delay in handling returns, claims, etc.	19.2
Depreciation controversies	15.3
Attitude of agents, Bureau	14.8
Expense of compliance	14.4
Excess profits relief	12.5
Frequent changes in regulations	7.8
Officers' salaries problems	7.4
Action considered contrary to law's intent	4.9
Pension plan difficulties	3.7
	100.0

Analysis of 1944 Stock Ownership

THE number of stockholders in American companies is decreasing rather than increasing.

Total stockholders of 200 of the country's leading corporations, it is revealed by *Forbes'* fifteenth annual report, has fallen slightly. In 1944 these 200 companies had 9,821,103 stockholders, a decline of 49,575, or .5 per cent, from 1943.

The larger increases occurred in the classifications of machinery and supplies (1.2 per cent) and railroads (1.1 per cent). These slight rises may be traceable to the improved positions of these industries due to the war.

The main decreases were in public utility holding companies (—2.2 per cent), financial institutions (—2.2 per cent), and automotive and accessory companies (—1.4 per cent).

—DR. DANIEL STARCH in *Forbes* 8/15/45

Life Insurance Policy Costs

THE average net cost of ordinary life insurance has shown practically no change during the past year, and today, though materially higher than in 1930, is not far from the 1920 cost level, it is reported by the Institute of Life Insurance, which has made an analysis of policy costs from 1920 to 1944 among companies which carry nearly three-fourths of all U. S. ordinary policies.

Between 1920 and 1930, life insurance costs dropped as the earnings on invested policy reserves increased in the pre-depression boom of the '20's. At the low point they were from 10 to 15 per cent below the 1920 cost level. As interest rates persistently decreased following 1930 and investment earnings, which constitute one of the important cost factors, fell off, the cost of life insurance increased. While interest rates have been declining steadily since 1930, the analysis shows that, on the principal types of policies issued, the sharpest increase in cost occurred between 1930 and 1935. The increases would probably have been greater, the Institute declares, had it not been for the lowered death rate among policyholders, which has partly offset the decline in investment earnings.

The coverage and services of practically all life insurance policies have been expanded since 1920, so that the current cost provides a broader security than it did 25 years ago. An important service which has become established in this period is the use of income options on claim payments. More than \$400,000,000 annually is now being put under income payment plans, involving a lifetime of service to policyholders and their beneficiaries, while in 1920 not more than \$25,000,000 went under such plans.

That the decreased earnings from invested policy reserves have been an important factor in life insurance costs is indicated by the fact that these earnings would have been at least \$500,000,000 greater for the business as a whole in 1944 if the earning rate in effect just prior to 1929 had still prevailed.

—The Chronicle 4/13/45

Insurance

Highlights in the Group Insurance Field

SEVERAL significant developments have taken place in group insurance programs since 1940. The number of policies in force and the number of employees covered have substantially increased. In addition, new group insurance benefits which were non-existent 10 years ago have gained widespread acceptance.

Three conditions, all of them arising out of the war, have stimulated the growth of group insurance programs. One factor has been the freezing of wages. Employers, seeking to hold their workers and to attract a desirable type of applicant, adopted such programs as a substitute for wage increases. The second factor has been the inability of organized labor to obtain wage increases, which has brought the inclusion of free insurance protection in its demands on employers. The third factor has been wartime prosperity and high taxes. If an employer is in the excess-profits brackets, the net cost of group insurance is much below the insurance premiums, for he can deduct this expense from taxable income and consequently, to a large extent, pay for insurance from income which he would otherwise expend in taxes.

To ascertain company wartime policies on group insurance, the Conference Board has examined many plans which were established since June, 1943. In all, 189 group insurance plans were analyzed.

An outstanding characteristic of group insurance plans adopted during the war years is the number of benefits included in the company program. Approximately three-fourths of

the plans analyzed provide non-occupational accident and sickness benefits, also hospital and surgical benefits for employees. Approximately two-fifths include accidental death and dismemberment benefits, and 90 per cent provide life insurance. One-fourth grant hospital benefits for employees' dependents; and one-tenth, surgical benefits for these dependents.

Another characteristic of recently established plans is the completeness of their coverage. All workers who have been employed for a short probationary period, usually three months, are eligible to participate. Ordinarily, no distinction is made between salaried and wage-earning groups either in regard to eligibility or benefits.

One of the most significant changes in group insurance is the trend toward non-contributory plans. Prewar programs ordinarily were financed by contributions from both employer and employees. In contrast, 48 per cent of the plans studied here do not require employee contributions.

From the standpoint of postwar financing, the non-contributory plan raises several serious issues. Can the employer support such a plan in the postwar period? If not, can he persuade employees to share in the cost, especially if the personnel is on reduced working hours?

If the plan provides for joint contributions, a decision must be reached as to the proportion of the cost to be borne by employees. The policies of the companies studied vary widely. Even within a particular establishment, the proportion of the cost paid by the employee for one benefit may be far

greater than for another. In cases where the employee's share of the cost is the same for all benefits, the most common policy is to divide the cost evenly between employer and employee.

Employees' contributions to a group insurance plan will be affected by the proportion of premiums shared by them; by the number and amount of benefits provided; and, if contributions are based on income, rank of employee or sex, by the class to which the employee is assigned. Despite these many variants, there exists a striking correlation between the employee's compensation and his contribution under plans which base contributions on the employee's compensation. In the median groups at the wage levels between \$25 and \$40 per week, the employee contribution is approximately 1.5 per cent of compensation.

Life insurance was the first of the group insurance benefits to be underwritten and is still the most popular. It is payable for death from any cause. A uniform amount of life insurance is provided under the majority of plans analyzed. Nearly three-fourths of these uniform plans grant a death benefit of \$1,000. Under the plans which graduate the amount of life insurance according to compensation, the average plan provides insurance equal to approximately one year's pay.

A benefit closely related to group life insurance is accidental death and dismemberment insurance. It is ordinarily written in conjunction with either life or accident and sickness benefits, and the schedule of benefits is usually the same as for life insurance. The benefit may be given for any accident or only for non-occupational accidents. Of the plans examined, about 80 per cent include occupational as well as non-occupational accidents.

The full benefit is given for accidental loss of life or the loss of two members, such as two hands. One-half the benefit is paid for the accidental loss of one member, such as one foot.

Another benefit under group insurance which early was widely adopted is non-occupational accident and sickness insurance. It is in this field that the most revisions have been made in insurance underwriting because of adverse wartime experience. In most establishments, the young and able-bodied males with favorable health experience have been inducted into the armed services, and their places taken by women and older men. The rate of disability is twice as high for women as for men, and is markedly higher for men over 50 than for those under 50. The problem of malingering is more serious for married women than for single women. Also, companies have been forced to lower their physical standards to obtain needed personnel, and to hire persons whose health is below normal. All these factors, together with long working hours, unfavorable working environment, and accumulated fatigue, have contributed to a sharp rise in the frequency and duration of disability.

This unfavorable experience has been reflected in increased claims under group health insurance. As a consequence, a number of underwriters have revised rules which had proved satisfactory for the past 20 years. Among the important changes made by some insurance companies are: (1) decreasing the maximum disability benefit which may be underwritten from two-thirds to one-half of base pay; (2) reducing the maximum period for which disability benefits may be paid to 13 weeks; and (3) requiring a seven-day waiting period before benefits begin for disabilities arising out of illness.

The disability benefit provisions of the plans studied reflect these limitations. For plans with benefits based on compensation, the average plan provides insurance equivalent to half pay for employees earning between \$30 and \$50 a week, with the percentage of compensation granted as a benefit decreasing to 40 per cent for employees earning \$75 per week.

Approximately two-fifths of the accident and sickness benefit provisions grant a uniform benefit for all participants. The majority of these flat-sum plans provide a benefit of either \$10,

the sum most frequently appearing, or \$10.50 a week.

In accordance with recent changes in underwriting rules of many insurance companies, 93 per cent of the plans limit the maximum duration of benefits to 13 weeks, 5 per cent to 10 weeks, and only three plans to 26 weeks. For disabilities arising out of pregnancy, the maximum benefit permitted by the insurance companies is six weeks. BY F. BEATRICE BROWER. *The Conference Board Management Record*, July, 1945, p. 180:2.

Payroll Records Can Prevent Loss

MOST insurance buyers recognize that just buying insurance does not provide full protection against loss. One other factor to be considered is the prevention of accidents to forestall increased rates under experience rating; and, more important, to minimize loss of production resulting from displacement of injured employees.

Another loss-prevention factor, which is sometimes overlooked, is the keeping of proper payroll records. For example, a contractor who employs a number of common laborers to do miscellaneous work at a given job should keep an accurate record of the amount of time each one spends on particular types of work. Then, in figuring compensation rates and charges, the insurance company can break down the total work and apply the rate classification which is applicable to each. If such records are not kept, it is necessary for the carrier to base its charges on the highest-rated classi-

fication applicable to the entire job or location.

On a manufacturing risk where several classifications apply, the payroll of employees such as superintendents, maintenance or power plant workers, watchmen, shipping and receiving clerks, or yardmen, which cannot be properly assigned to a specific classification, must be assigned to the governing classification, i.e., that of the class that carries the largest amount of payroll. However, it is frequently possible to assign some of the employees to particular work which may be classified separately and carry a lower rate.

In one case the insurance company's auditor questioned the application of classifications after noting in the payroll journal the headings of the individual operating accounts for a particular department. These headings did not typify the operations usually found in the manufacturing process of that particular product. The auditor requested permission to observe the actual operations in the department,

and was guided on a tour through the building by the secretary of the insured. The operations were found to be similar to others of a less hazardous nature undertaken in other buildings of this plant. Proper reclassification resulted in the company's being able to secure a lower-rated classification for this work.

Another substantial premium saving is possible for the employer who segregates from the remuneration used as the basis of premium that portion of wages paid which is derived from application of a surcharge (above and in addition to the regular wage rate) to hours worked in excess of the standard workweek. Here, again, proper payroll records are the means to the saving, as they must show overtime wages in two ways: (1) by individual employee, and (2) in summary by workmen's compensation insurance classifications. As an alternative, if the books and records of the employer do not provide this information, but do show separately both by individual employee and in summary by workmen's compensation insurance classifications:

- (a) the wages paid for the number of hours worked not in excess of the standard workweek, and
- (b) the wages paid for the number of hours worked in excess of the standard workweek, including the surcharge portion described in the preceding paragraph,

then the total wage used as basis for premium is the amount of item (a) plus two-thirds of item (b). It should be noted that this rule does not apply to stevedoring operations.

Insurance company auditors are always ready to assist in setting up a payroll record system which will help insureds achieve maximum savings.

Verification of the payroll by use of

Social Security and Federal Excise Tax Reports is a helpful function of the insurance carrier's auditor. For example, an auditor from the writer's company completed his examination of an insured's books and proceeded to verify the total payroll for the calendar year with the Federal Excise Tax Report. After comparing the total payroll indicated in this report with the figure obtained from the books, he found that the payroll on the federal report was \$90,000 in excess. He rechecked his figures taken from the books, but this re-examination produced the same result as originally. It was therefore presumed that the insured had made an error in calculating the payroll for the Federal Excise Tax Report, and the auditor offered his assistance to the insured in locating the discrepancy. A review of the work sheets used by the bookkeeper in preparing the tax report revealed that an incorrect transposition of payroll had been made, accounting for the difference of \$90,000. The insured was thus enabled to advise the government of this error; his consequent tax saving was approximately \$400.

Another detail in the maintenance of proper payroll records is making certain that certificates of insurance are provided by any outside organization doing work for an insured, since state compensation laws often make the principal or general contractor responsible for accidents to employees of subcontractors. While the workmen's compensation policy of the insured would provide protection for the latter, he would have to pay the insurer an additional premium. Moreover, any losses resulting from the operations of the subcontractor would adversely affect the insured's experience rating. BY FRANK S. YOUNG. *American Mutual Magazine*, July, 1945, p. 11:2.

Sees U. & O. as Standard Cover

USE and occupancy insurance should become as standard a coverage for business and industry as property damage, H. R. Thiemeyer told the Fire Insurance Examiners Association of Chicago at a recent meeting. U. & O. has been a much more satisfactory line during the war than P.D., he said.

If U. & O. is to have the future to which it is entitled, values must be covered so that the insured does not find himself paying a coinsurance penalty when a loss occurs. From Pearl Harbor to February 1, 1945, Mr. Thiemeyer said, analysis of approximately 900 risks scattered over a wide area showed an average underinsurance of 31 per cent. Of approximately \$8,500,000 of adjusted U. & O. loss, the companies paid only \$5,900,000. Insurance to value ranged from the full requirement to 90 per cent below. Producers, he said, are not asking insureds about values.

Yet these values, he insisted, are simple to determine. They can be secured from a mercantile risk in five minutes' talk with the bookkeeper. Assured then could collect his full loss.

Mr. Thiemeyer cited a case where the agent had sold a per diem U. & O. policy providing daily U. & O. insurance for \$200. The agreed loss was 60 days at 50 per cent, which, under operation of the partial suspension clause, produced a liability of \$6,000. The loss was more than \$30,000. The payment was 18 per cent. The 80 per cent coinsurance form would have paid 22.8 per cent, or \$1,431 more, an amount that would certainly have purchased considerably more coverage.

The companies have not yet felt the benefits of the double rate for the priorities assumption clause, and Mr. Thiemeyer expressed a belief that there is no need for such a rate. The companies are not getting 12- to 16-month losses. Assureds are quickly resuming production. They have good will to protect, in addition to profits, and they are making every effort to resume operations in the quickest possible time.

There is, Mr. Thiemeyer said, a movement on foot to revise the method of U. & O. rating, basing it on a combination of the building and contents rates. In response to another question, he said that the time element contract is being written on the Pacific Coast. Personally, he said, he objects to it because one agent will tell an assured he needs the coverage for six months; the next agent, for five months; and so on. Thus an insured is not protected against a catastrophe.

—The National Underwriter 5/22/45

Survey of Books for Executives

MANAGEMENT AT THE BARGAINING TABLE. By Lee H. Hill and Charles R. Hook, Jr. McGraw-Hill Book Company, Inc., New York, 1945. 300 pages. \$3.00.

*Reviewed by Elinore M. Herrick**

This book is a "must" for all employers. Not because the recommendations of the authors as to what should

go into a labor agreement and the suggestions as to language are necessarily sound but because the book cannot fail to stimulate employers to think through to a sounder conclusion the problems of their individual bargaining relationship.

Starting with the premise that "most managements now recognize that unions are here to stay," the authors perform a valuable service in emphasizing the necessity for management to

* Personnel Director, New York Herald Tribune.

safeguard in the collective bargaining process its ability to continue to function efficiently as overseer of a business enterprise. They show an understanding of organized labor's attitude when they urge putting the emphasis on management *functions* and recommend discarding the word "prerogatives" and the autocratic thinking that underlies the latter term.

One of the most important contributions in the book is the discussion of "Union Devices to Attack Management Rights": (1) mutual-consent clauses; (2) joint committees of labor and management; (3) determination of promotions, etc., by seniority rather than managerial discretion; and (4) unlimited arbitration. The authors rightly point out that "mutual-consent clauses, for example, are "innocent-sounding but mean in effect that management cannot make the decisions unless the union or the employee involved agrees to it." The wide range of subjects on which unions are prepared to seek participation in normal management functions without undertaking or being able to assume any responsibility for the consequences of mutual-consent clauses is well exemplified in this section. Here the authors sagely point out, however, that "wise managements do not simply dismiss such demands as absurd but try to determine the underlying cause, whether the demand is symptomatic of an undesirable condition, practice, or policy that should be corrected."

Timely also is the book's warning against unlimited arbitration and the danger in arbitration clauses which are intended merely to permit a third party to interpret a contract but by loose language permit a third party to write a new contract. The authors convey to this reviewer a confused impression. On the one hand they seem not to favor

arbitration, whether circumscribed or unlimited, on the grounds that "matters that were previously within the sole discretion of management become subject to decision by a third party who usually does not have management's intimate knowledge of the background, personalities, conditions, costs or probable results of making a specific decision and is not responsible for results." The alternative to arbitration as a means of resolving certain types of disputes, however, is the strike, and so on the other hand the authors strongly recommend inclusion of "no-strike and no-lockout" clauses and preservation of the right of management to discipline those who violate the agreement. They attach great importance to enforcement clauses, saying that without them the basic no-strike-no-lockout provision, for example, is of little value. And they recommend qualifying certain clauses by including a proviso for the exercise of "good faith." This emphasis on enforcement clauses and good faith seems a trifle naive. Real enforcement and good faith are secured only through day-by-day administration of the labor agreement by a management that thinks clearly, is just in its decisions and actions, and is above all firm. A sound disciplinary policy operated as a function of management would seem to provide adequate opportunity for enforcement without including specific penalties in the basic labor agreement. The authors wisely point out the dangers of permitting disciplinary policy to be arrived at by collective bargaining and of itemizing specific clauses for discharge in the agreement.

The clauses selected by the authors to illustrate their thesis seem to this reviewer often to be of questionable value and to reflect a certain confusion of thought. But the insistence of the authors on the necessity for an em-

ployer to analyze objectively each union demand in terms of his own circumstances and problems and above all to safeguard his managerial functions is commendable. The one real weakness in the book which should be borne in mind by the reader is that the authors attempt to spell out their recommendations in too much detail by means of specific clauses. Many of these details might better be omitted in favor of a simple statement reserving to management the functions customarily and necessarily exercised by it in the efficient conduct of the business. No management can foresee every eventuality, and the most skilled drafter cannot safeguard his language against distortion or attempted distortion later. The authors themselves seem tacitly to recognize this factor, as in the section headed "Unsound Management Attitude" they point out the danger of "trading," of "Give them what they want, the company is licked anyhow," or "We don't have to worry." Here they point out: "A seemingly passive or pleasantly cooperative union has often made dangerous inroads into management functions by being given a favorable clause here and a seemingly innocuous phrase there. But since union leadership is more susceptible of change than is management leadership, managements have found to their surprise that clauses existed in their contracts of which they were not aware, or that to them did not mean what the union thought they meant, resulting in an almost unworkable situation."

Since grievances—real or fancied—are the most frequent causes of strikes, the section of the book dealing with grievance machinery and procedure cannot be passed over without comment. In their analysis of the basic provisions for a grievance machinery, the authors rightly point out that "the

grievance machinery itself may be a fruitful source of grievances" unless the agreement clearly defines (1) a grievance under the contract; (2) the various steps through which a grievance may be initiated and appealed; (3) the representatives of union and management responsible for handling grievances at the various steps; and (4) the rights of union representatives to be absent from their work and to interview designated management representatives in handling grievances as provided in the agreement.

Here again, as elsewhere throughout the text, the authors' major contribution lies in defining the problems rather than in prescribing specific methods of dealing with them. It is of the utmost significance, however, that in a book written by two management representatives the obligation to protect managerial functions and also to deal fairly with unions is time and again reiterated.

THE HANDBOOK OF INDUSTRIAL PSYCHOLOGY. By May Smith. Philosophical Library, Inc., New York, 1944. 304 pages. \$5.00.

*Reviewed by Edward N. Hay**

In her preface to *The Handbook of Industrial Psychology* Dr. Smith says, "This little book is not intended to be a detailed chronicle of psychology from the industrial standpoint but to provide an introduction to the subject for those who are in some way responsible for others, or who have to get on with others." This promise is not borne out by the contents of the book, which seem to be, in the main, a series of unorganized comments drawn from reports of the work of the Health of Munition Workers Committee. This

* Personnel Officer, The Pennsylvania Company.

organization was set up in England in 1915 to conduct physiological and psychological studies in industry. Some of the many topics touched on (for Dr. Smith does no more than touch on them) include fatigue, noise, time and motion study, temperaments, accidents and grievances. The style is readable, but the author's facts are stated in such general terms as to have no useful application. Dr. Smith's volume illustrates the difficulty psychologists encounter in making their knowledge available and helpful to industry. Their failures are matched by the reluctance of industry to seek out and utilize the vast storehouse of knowledge in the fields of psychology and physiology which only awaits intelligent application. Probably the fault lies more with industry than with the scientists because it remains a fact that only an insignificant percentage of industrial executives (and this includes personnel people) acknowledge any relation at all between the practical problems of industry and the theoretical studies of psychologists and other scientists.

Most of the material in this book is dated many years back. For example, a random selection of books and articles referred to includes none later than 1936, most of them being of the period from 1915 to 1923.

The book cites several obsolete or untenable personality classifications, such as the following (on page 110):

"The following are general descriptions of different kinds of people in authority:

1. The explosive person. . .
2. The pre-adolescent. . .
3. The adolescent. . ."

A more inadequate classification of "Different Kinds of People in Authority" could hardly be imagined.

In general, the work is confusing

in its lack of organization, generally out of date, and scarcely of practical use to anyone in industrial personnel work. It is a pity that so poor a book should have so promising and impressive a title. The crowning weakness of the book is the lack of an index.

PRACTICAL MANAGEMENT RESEARCH.

By Alexis R. Wiren and Carl Heyel.
McGraw-Hill Book Company, Inc.,
New York, 1945. 222 pages. \$2.50.

Reviewed by Robert Wray Porter

Competitive markets, price structures, and labor relations are never simple problems. Today they are really complex. In an endeavor to get a better perspective on these and similar management situations, business men gradually are turning to fundamental fact-finding through management research.

The principles and practices of this important subject are discussed in this volume by Alexis R. Wiren, of the Equitable Life Assurance Society of the United States, and Carl Heyel, of Lehn & Fink Products Corporation. The book not only describes how to analyze business problems but cites examples of actual problems and shows how they were solved.

Executives can improve the quality of their business judgment and the soundness of their managerial decisions, the authors maintain, by applying proved practices of diagnosis. And, obviously sound judgment in connection with business problems has its origin in unprejudiced facts.

Admittedly, it takes time and patient work to dig out essential facts. This is sometimes inconvenient, so far as business is concerned, for fluctuating factors beyond management's control fre-

quently require prompt decisions which do not allow sufficient time beforehand for thorough diagnosis. In these cases, the authors imply, the processes of systematic thinking can spot the essentials of a given problem and, by analysis, establish a reasonable premise for a logical decision. Wiren and Heyel treat these subjects in simple, clear and direct text in such chapters as: "Systematic Solution of Management Problems," "Pointers on Making Both Internal and External Management Studies," "The Management Research Program."

The subject matter of the book is divided into two well-arranged parts. Part I describes the principles and techniques that alert executives employ to correct specific situations which frequently interfere with effective policy, organization, personnel, work flow, standards and schedules. Case material is employed in this discussion.

While emphasizing the scientific approach, the authors duly recognize

that plans and programs of management must be squared with the aspirations and limitations of the human element, which, in the end, can make or break any management plan. This fundamental truth explains why the adjective "practical" is included in the book's title.

Part II consists of four articles, by G. E. Conkling, L. Clayton Hill, F. W. Stein, and Fenton B. Turck (in collaboration with William E. Hill). These recognized authorities in the field of management research have contributed check lists and proved techniques—distilled from their long and varied experiences—involving the practical application of the principles discussed in Part I.

Members of top management, staff executives and department managers undoubtedly will find unexpected highlights in *Practical Management Research*. The book should prove helpful to them in disposing of many perplexing problems.

OFFICE MANAGEMENT CONFERENCE

A Conference of the Office Management Division of the American Management Association will be held on Tuesday and Wednesday, November 13-14, at the Hotel New Yorker, New York City.

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